

These are included in the statements which purport to deal with the number of *pupils* in boys' schools. In other respects, this chapter deals only with schools for boys and boys in secondary schools.

Secondary Schools.

73. The total number of secondary schools declined from 1,464 to 1,456, or by 8, in the year under review. The number of Middle English schools remained stationary, that of High schools increased by 2, and that of Middle Vernacular schools declined by 10. The decline in the number of Middle Vernacular schools is the inevitable outcome of the small value which attaches to a purely vernacular education. In years gone by a Middle Vernacular pass qualified a student for admission to Medical and Survey schools and to the Mukhtiyarship examination. This is no longer the case. The steady decline in the popularity of these schools must, in my opinion, culminate in their abolition as a separate class of schools. As indicated in the next chapter, there is only one examination held in this Province, that is to say, that held at the end of the middle vernacular course. It is however termed the "Primary Examination." It would be consistent therefore to consider all Middle Vernacular schools as Primary schools, as in the Bombay Presidency. This is a subject which is engaging my attention, and I shall, if necessary, make a reference to Government in regard to it.

General statistics of English and Vernacular schools for boys.

74. In paragraph 316 of the Fourth Quinquennial Review the cheapness of an English Secondary school is commented upon. It is stated that the cost of such a school in the year 1901-1902 was Rs. 191 a month. This calculation evidently proceeds on the assumption that all Middle English schools should be classed as Secondary English schools. It has to be borne in mind however that no subjects are taught through the medium of English in these schools, but that English is taught merely as a language in the four top classes. These schools are really therefore Vernacular to a much larger extent than they are English. The monthly cost of a High school in the year under review was Rs. 362, and that of a Middle English school Rs. 67. On the other hand, if both these classes of schools be considered as English Secondary schools, as in the Fourth Quinquennial Review, the cost was Rs. 178, as against Rs. 191 in the last year of the last quinquennial period.

Cost of English schools.

75. If we reckon Middle English schools as Secondary English schools, we find that of 1,029 such schools, 73 were under public, and 956 under private, management. Of the 73 schools under public management, Government itself only maintained 41, the rest being managed by the District Boards and Municipal Committees. The bulk of the schools maintained by Government are High schools, in pursuance of the established policy that there should be one Government High school in each district.

Management of English Secondary schools.

76. Of the 427 Middle Vernacular schools, 121 were under public, and 306 under private, management. Of the 121 schools under public management Government itself however maintained only 17.

Management of Middle Vernacular schools.

77. Of 956 privately managed English Secondary schools, 655 were aided, and 301 unaided. The proportion of aided schools was much greater in respect of Middle Vernacular schools. Thus, of 306 such schools, 263 were aided and 43 only unaided. The inference is obvious. People want schools where English is taught, and therefore contribute readily enough towards that form of education.

Aid to privately managed English and Vernacular Secondary schools.

Statistics of Pupils.

78. Pupils in secondary schools increased from 145,094 to 147,516, or by 1.66 per cent. Of the 147,516 pupils in secondary schools, 65,385 were in the secondary, and 82,131 in the primary, stage of education. The primary stage pupils are included in the statistics given in the chapter on Primary Education and are not taken into account in this paragraph. Of the 65,385 pupils in the secondary stage of education, 61,254 were in English, and 4,131 in Vernacular, Secondary schools. Again, of the 61,254 pupils in the secondary stage in English schools, 33,805 were in the high, and 27,449 in the middle, stage of instruction. One pupil was in the secondary stage of instruction in an English Secondary school to every 63 pupils of a school-going age, as against 1 to every 71 at the close of the last quinquennial period. On the

Pupils in Secondary schools and in the secondary stage of education.

students take up as their subjects (1) Modern English, (2) Mathematics, (3) Drawing and practical geometry, mensuration, elementary engineering and surveying, and (4) Manual training. Those who are successful pass on to either a technical school affiliated to the Sibpur Engineering College or to the Apprentice Department of that college. Seven out of the ten High schools in which this system prevails are now in the Province of Eastern Bengal and Assam; but the Principal of the Sibpur Engineering College, in accordance with the wishes of the Lieutenant-Governor of that Province, still supervises the working of these classes. On the whole the classes have not been a success, especially in the schools which now remain in Bengal. These classes require very careful fostering, and in present circumstances they do not receive the attention which they require. If however a special officer is appointed, as suggested in the chapter on Professional and Technical Education, to supervise technical and industrial schools, these classes will come under more effective control and there should be a decided improvement.

85. In accordance with the scheme referred to in the last paragraph, boys who wish to enter a commercial career may, at certain selected High schools, instead of continuing the ordinary literary course up to the end of their school life, specialise during their last two years at school. The course has recently been revised, and comprises at present the following subjects:—

- (1) Mathematics,
- (2) Modern English,
- (3) History and geography,
- (4) Drawing and practical geometry, and
- (5) A vernacular.

These classes have hitherto not proved successful. I have lately placed them under the general supervision of the Professor in charge of the Presidency College classes, and it is hoped that this measure may tend to increase their efficiency. As explained however in the chapter on Professional and Technical Education, the classes at the Presidency College, up to which they lead, are themselves in the experimental stage.

86. At certain selected High schools provision has similarly been made for specialisation as regards agriculture during the last two years of the school course; practical training being given at the neighbouring experimental farms which are under the control of the Director of Agriculture. These classes have hitherto not been under expert supervision, and it is impossible therefore to say what success has attended them. The Director of Agriculture has kindly consented to supervise them in future, and the question of the instruction to be imparted at them is under his present consideration.

Examinations.

87. I have in the last chapter commented on the results of the Entrance examination. The percentage of success for the year under review was 26·4 only. At the Middle School examination, out of 10,248 candidates, 7,761, or 75·7 per cent., passed. The popularity of this examination has been enhanced by the decision to grant leaving certificates as a result of success at it. As indicated in the next chapter, no public examinations are held at the upper and lower primary stages, and the figures given in General Table VI against these examinations represent merely the results of class examinations.

CHAPTER V.

PRIMARY EDUCATION FOR INDIAN BOYS.

Scope of the Chapter.

88. As stated in the Fourth Quinquennial Review, primary education may be regarded in either of two aspects, in the first place as the education given in primary schools, and in the second place as the primary stage of instruction, in whatever grade of institution that instruction may be received. This chapter is generally concerned with primary schools only; but, when the

other hand, 1 pupil was in the secondary stage of instruction in Vernacular schools to every 949, as against 1 to every 830 at the close of the last quinquennial period. The falling off in the latter case is due to the unpopularity of Vernacular schools noticed above.

Expenditure.

General statistics of expenditure.

79. There was very little change as regards either the expenditure on Secondary schools for boys or the sources from which that expenditure was derived. The total expenditure increased from Rs. 23,90,040 to Rs. 24,29,130. Of the last-named sum, Rs. 4,43,970 were contributed from public, and Rs. 19,85,160 from private, funds.

Cost of educating a boy.

80. The average annual cost of educating a boy in a High, Middle English and Middle Vernacular, School respectively during the year under review was Rs. 22, Rs. 12, and Rs. 9.

Subjects and methods of teaching.

Revision of the vernacular scheme of education as touching the lower classes of High schools.

81. I deal in the next chapter with the question of the revision of the vernacular scheme of education which was sanctioned by Government in 1901. As there stated, that scheme has resulted in comparatively empty lower classes in Government and aided High schools. Parents are anxious enough to send their boys to these schools as soon as they are fit for entry into the classes where the medium of instruction is English, because in general the teaching is better at such schools; but they not infrequently get them educated up to that stage in privately managed schools which are not subject to the vernacular system of education. It is hoped that the revision of the courses which is now to be taken in hand will result in modifying this anomalous state of affairs.

The teaching of English in the lower classes of High schools.

82. There is another reason for the preference for the teaching as given in privately managed schools. This is because in such schools more importance is attached to the teaching of English in the lower classes. It is true that in a Government or aided High school English is taught as a language in four classes below the fourth class, in which teaching through the medium of English begins. The transition from the fifth to the fourth class is however too abrupt, and it is long before the student begins to have any idea of what is being taught him through the medium of a foreign tongue. In fact, I am afraid that the teaching through the medium of English in this class is often a mere sham. As indicated in the next chapter, a revision of the courses of studies in the classes below the high school stage is under consideration, and this question will then be carefully considered. Possibly some system of oral instruction in English in the lower classes will be suggested, which will not at the same time cause undue interference with the main course of instruction, which is rightly given through the medium of the vernacular.

The teaching of English in the four top classes of High schools.

83. I comment in the chapter on Training Colleges and Schools on the urgent need for the training of teachers for High and other secondary schools, and allude to the steps that are being taken for the opening of training colleges for such teachers. The wonder seems to me to be not that so few students pass the Entrance examination as in the present year, but that so many are usually able to do so. I have in the last paragraph observed that it takes a boy a long time after entry into class IV of a High school to understand at all the instruction given through the medium of English. I fear that in a similar way boys who have passed the Entrance examination often have so little real knowledge of English as to make it impossible for them to understand their college lecturers when they first join a college. This is a complaint which I have frequently heard made. If, however, as may be hoped, the proposed Training Colleges are a success, there should before long be a great improvement in this respect.

Special instruction at selected Government High schools.

Industrial classes in High schools.

84. Under a scheme sanctioned by the Government of Bengal in the year 1900, boys who wish to enter an industrial career may, at certain selected High schools, instead of following the ordinary literary course up to the end of their school life, specialise during their last two years at school. Such

courses of instruction in primary schools are discussed, the remarks made apply generally in regard to the lower classes of secondary schools in which primary instruction is imparted.

Primary schools
for boys and girls.

89. There were 33,665 primary schools for boys and 2,843 primary schools for girls in the year under review. Over 24·7 *per cent.* of the male, and nearly 2·7 *per cent.* of the female, population of a school-going age are in the primary stage of education. Following the procedure adopted in the Fourth Quinquennial Review, I have relegated the subject of the primary education of girls to the chapter on Female Education, on the ground that it would mislead and confuse to amalgamate statistics for boys and girls. Owing however to the system of co-education which prevails in this Province, the figures for the pupils in boys' schools include a certain percentage of girls studying in such schools. The total number of such girls in the year under review was 43,086. This number is comparatively small and is included in statements which purport to deal with the number of *pupils* in boys' schools.

Primary Schools.

General statistics.

90. The number of public primary schools for boys rose from 33,298 to 33,665 and the pupils attending them from 909,971 to 929,163, or by 1·1 *per cent.* and 2·1 *per cent.*, respectively. In the Government Resolution on last year's annual report, it was remarked, in connection with the decrease that had occurred in that year in the number of primary schools and pupils attending them, that the policy, introduced within the last few years, of insisting on a certain degree of efficiency before putting a school on the aided or stipendiary list, had no doubt resulted in a considerable decrease in the number of schools and of boys attending them. Later on in this chapter I discuss at some length removeable causes which, I think, are operating to retard the progress of primary education both in primary schools and in the primary departments of secondary schools. I think it is a sign of the vitality of these schools that, notwithstanding our insistence on a higher standard of efficiency and the existence of the drawbacks to which I allude, their number and the number of pupils attending them now show a tendency to rise. The increase in schools and pupils is generally shared by all Divisions, except the Burdwan and Chota Nagpur Divisions. In the former the loss of schools amounted to 2·6 *per cent.* and that of pupils to 1·1 *per cent.* In the latter the number of schools decreased by 1·7 *per cent.*, while that of pupils attending them increased by 2 *per cent.*

Upper and lower
primary schools.

91. The bulk of pupils do not study beyond the primary stage and are taught in primary schools. Of the 33,665 primary schools of this Province, 2,867 are upper primary, and 30,798 lower primary, schools. Both classes of schools have increased, and with the increase in the number of schools, there has been a corresponding increase in the number of pupils attending them. Thus, upper primary schools have increased from 2,747 to 2,867 and the number of pupils attending them from 122,624 to 133,639; while lower primary schools have increased from 30,551 to 30,798 and the number of pupils attending them from 787,347 to 795,524.

Schools, according
to management.

92. Of the 33,665 primary schools which existed in the year under review, 204, or 6 *per cent.*, were under public management. Of the 33,461 privately managed schools, 26,760 were aided by Government and 6,701 were unaided.

Statistics of pupils in the primary stage of instruction, whether in Primary or Secondary Schools.

General statistics.

93. As explained above the statistics of pupils may be regarded in either of two ways; firstly, with respect to pupils in primary schools and, secondly, with reference to pupils in the primary stage of instruction whether in primary or secondary schools. The number of pupils in the primary stage in primary and secondary schools in the year under review was 1,011,290, as against 1,001,324 in the previous year. This figure gives the most correct view of the general condition of public primary instruction. If the number of girls studying in boys' schools is excluded, 1 in every 4 boys of a school-going age is in the primary stage of instruction.

94. In the year under review 246 boys per thousand of a school-going age were in the primary stage of instruction in public schools. The figures for male literacy, estimated according to the present population, works out however to 107 per thousand only. As explained in the Fourth Quinquennial Review, the rudimentary character of the instruction given in many of the Bengal village schools may have some bearing on this circumstance.

Finance.

95. The total expenditure on boys' primary schools shews but a slight increase, the figures being Rs. 23,63,767 for 1904-1905 and Rs. 24,09,456 for 1905-1906. The last-named sum does not however take into consideration the expenditure incurred on the construction of buildings for primary schools referred to in the next paragraph.

96. A large grant for primary education was made in the year under review by the Government of India. Out of this grant Rs. 5,03,598 were assigned towards the construction of suitable buildings for primary schools. Further sums, amounting in all to Rs. 75,381, were expended on various improvements connected with primary education, the chief of which was the development of indigenous Muhammadan schools (*maktabs*). A balance of Rs. 88,021 was not utilised during the year; but this sum will be available for expenditure in future years.

97. Of the total expenditure of Rs. 24,09,456 on primary schools for boys, Rs. 8,45,663 were derived from public, and Rs. 15,63,793 from private, sources. Of the expenditure from public funds, Rs. 1,54,257 were derived from Provincial Revenues, Rs. 6,34,414 from District Funds, and Rs. 56,992 from Municipal Funds. The bulk of the money allotted to aided primary schools is given by District Boards. Thus, of Rs. 7,98,048 distributed by way of grants-in-aid to these schools, Rs. 1,33,976 were contributed by Provincial Revenues, Rs. 6,08,413 by District Funds, and Rs. 55,659 by Municipal Funds.

98. A rule still exists that District Boards are required to spend not less than 10 *per cent.* of their ordinary income on primary education. Inasmuch however as the amounts which District Boards must spend on education have recently been fixed by orders of Government, the question whether this rule should be retained or be replaced by some other rule is now under consideration. Municipal Committees are required to spend 3·2 *per cent.* of their income on primary education, and, until this condition is fulfilled, they may not devote their funds to the aid of secondary schools.

99. Reporting officers are unanimous that the present system of payment of teachers of primary schools, partly by a subsistence allowance and partly by subsequent annual lump payments, is working as well as it can be expected to do in present circumstances. The system will however work much more effectively when the inspecting staff is strengthened.

100. The average cost of educating a pupil in a boys' primary school amounted, as in the previous year, to Rs. 2·9 a year.

101. The extraordinary cheapness of Indian primary schools has often been made the subject of remark. The average cost of a primary school in this Province for the year 1905-1906 was Rs. 6 a month, while the average cost of an unaided primary school was Rs. 3 a month. It is essential to bear the cheapness of these schools in mind when treating of problems concerning them and the teachers employed in them.

Primary Education in the Darjeeling Hills.

102. At an important conference of officials and representatives of the planting community held in Darjeeling after the close of the year, the question of extending elementary education among the hill population was discussed, and it was decided that steps should be taken in that direction; the understanding being that Government should give liberal grants-in-aid, and that tea garden managers on the other hand should provide the sites and the school buildings and keep the latter in repair. The matter has since been discussed by the Darjeeling Planters' Association, and the conclusions arrived at by the conference have been endorsed. Steps are therefore being taken to provide

for the training of teachers for the proposed new schools, and it is hoped that the current year will see a commencement of a forward movement.

Night and Continuation schools.

Night schools.

103. As will appear from the Fourth Quinquennial Review the night school system has never had much success in this country, and the number of schools and pupils in the three Presidencies (Madras, Bombay and Bengal) in which the system referred to has been tried, has gradually been declining. The decline still continues in Bengal, the number of schools and pupils having fallen from 784 and 16,081 to 773 and 15,873, respectively. Circumstances are altogether against the system in India. Owing to climatic conditions the very people who would derive benefit from these schools, if they were able to attend them, are fatigued at the end of a day's work, and have no inclination to study at night. Then there is the difficulty about lighting. The ordinary Indian country lamp gives a very bad light, and it is doubtful whether it is wise to encourage schools of this kind, except in big towns, where proper lighting arrangements can be made.

Continuation schools.

104. A real attempt is, however, being made in the Presidency Division, in which the town population is large, to develop continuation schools with classes held either by day or night, the subjects to be taught being chiefly book-keeping, correspondence, mathematics and science. The number of such schools increased during the year under review from 19 to 31, and I have recently sanctioned the opening of 24 more schools of this type. I have at the same time circulated copies of the correspondence on this subject to the Commissioner of the Presidency Division and the District Officers of the Division soliciting their co-operation in working out this important experiment.

School Buildings.

105. Bengal has hitherto had the unenviable reputation of being the most backward of all the Provinces in the matter of school buildings. Substantial progress was however made in the year under review, the Local Government assigning a sum of Rs. 5,03,598 towards the construction of suitable buildings on condition that a reasonable proportion should be contributed from local sources. During the current year and in future years very little expenditure in this direction will, I anticipate, be possible owing to the urgent calls for money in numerous other directions; nor am I personally of opinion that further money should be expended in this way. Government has set an example in the matter, and I consider that the most advantageous procedure to follow in future will be to promise specially favourable grants-in-aid where the residents of any locality are prepared to supply the funds necessary for building a school-house and to undertake to keep it in repair. I propose to work out a scheme on these lines as soon as practicable and to submit it for the consideration of Government.

Subjects and the methods of teaching.

General scope of the changes proposed.

106. As stated in the chapter on "Educational Conferences," much progress has been made with the revision of the vernacular scheme of education, as sanctioned by Government in the year 1901, in so far as it concerns lower primary schools. The system, as hitherto in force, is one of the causes to which I have alluded above as operating to retard the progress of primary education both in primary schools and in the primary departments of secondary schools. The effect of the system has been particularly noticeable in high schools. The four highest classes of these schools, in which instruction is imparted through the medium of English, are generally crowded; whereas the attendance in the lower classes, in which the vernacular system of education is in force, is generally scanty. What happens not infrequently is this. Boys study in their early years in private schools, in which the vernacular system of education is not in force, and then join the higher classes of a high school. This is one of the commonest ways in which the scheme is evaded.

107. The first measure to be taken is to produce proper text-books. Loud complaints have been made that the present text-books are not written in simple language, commonly used by the people, but in an unfamiliar literary style. The subject-matter of these books also is not free from criticism. Steps are accordingly being taken to bring out, at the expense of Government, text-books in which, it is hoped, these defects will not be found. This does not of course mean that Government intends to monopolise the production of text-books. It will merely give the lead by showing the kind of books which are required; and if private enterprise can produce equally good or better books these will be accepted. The next point is that the existing courses, as far as lower primary schools in rural areas are concerned, are too long, too advanced and too diversified, and that for all classes of lower primary schools the present syllabus presents too many and too difficult subjects. As regards lower primary schools in rural areas, the compulsory course according to the revised syllabus will extend to three hours daily only; but instruction will be given in certain supplementary subjects, of which those who wish to do so may avail themselves. In lower primary schools in other than purely rural areas, the combined compulsory and optional subjects will constitute the prescribed course.

Simplification of the text books and courses of study.

108. At present there are three Infant classes in a lower primary school, in addition to the two classes which read the courses of study prescribed for standards I and II. It is considered that two Infant classes will be quite sufficient. Instead therefore of three Infant classes, as heretofore, for the ages of 5-6, 6-7, and 7-8, there will be two classes, the first for infants aged from 5-7 years and the second for those aged 6-8. The remaining two classes will, as heretofore, be termed standards I and II and be for children aged about 8 and 9, respectively. This reduction of the number of classes is not a matter of small importance in view of the fact that in the vast majority of these schools there is only one teacher. Even thus, each teacher will have to look after four classes; and it will more than tax his strength to do this even moderately well.

Reduction in the number of classes.

A brief account of the revised Syllabus.

109. In the preparation of the revised syllabus the instructions, as laid down by the Government of India in paragraphs 20, 21, and 25 of their Resolution, entitled "Indian Education Policy" of the 11th March 1904, have been carefully borne in mind. Full advantage has also been taken of that excellent publication entitled "Suggestions for the consideration of teachers and others concerned in the work of public elementary schools" which was issued by the Board of Education, London, in the year 1905. The syllabus opens with an Introduction on the function of education as regards the formation of character. Two typical paragraphs of this introduction are quoted in the chapter on Physical and Moral Training.

Introductory remarks.

110. Much attention is paid to observation and expression lessons. The former will take the place of the subjects which are set down in the present syllabus under the names of Botany, Natural History, Agriculture, Physics and Chemistry. The existing science primer, which condenses these subjects into a few pages, will be abolished; for it is believed that the result of this system has been rote teaching and mechanical learning, that is to say, teaching from treatises about objects and not from objects. Children of this age are incapable of learning science, for generalising from facts belongs to a later stage of mental discipline, and instruction with this aim can only be given if the power of intelligent and accurate observation has been first developed. The cultivation of this power, which is the chief aim of the revised syllabus, is impossible, unless children are taught to observe, compare and contrast the objects which are around them. This they can never do so long as they merely read about objects. The existence of the Science Primer and the use to which it has been put has defeated the whole object with which the vernacular scheme of education was introduced. The object was to discourage rote teaching and to develop faculties, other than those which are exercised by reading and learning by heart; but the faculty of observation is not developed by reading unintelligently and committing to memory for the sake of examinations pseudo-scientific treatises. The books have been bad and the result of teaching from them so disastrous that numerous schools have declined to teach the

Observation and expression lessons.

syllabus and have thus cut themselves off from the Government system; while many others, though nominally following the syllabus, have really ignored that part of it which was concerned with the so-called teaching of Science. In connection with the study of plant life, which will be one of the main features of the Nature observation work, especially in rural schools, an extract is given in the syllabus from Mr. Sly's valuable "Note on school gardens." In that note it is stated that the "real object of a school garden should be to supply materials for object lessons in which pupils can study the growth of plants," and that "the garden should be one, where 'Nature is studied in its relations to the child, from the child's standpoint by the teacher with the children.'" It is true that the new system will make great demands upon the teachers. Lack of knowledge on the part of teachers, however, cannot be made good by putting into their hands a book dealing in a condensed manner with scientific subjects. To do this is to abandon the object which we have now set before us. Want of knowledge on the part of teachers can only be made good by careful and systematic training, and, as indicated in the chapter on Training Colleges and Schools, steps are being taken so that gradually all the teachers will come under such training. Meantime, although we must not expect too much from the teachers, we shall, however, have the satisfaction of knowing that the revised syllabus indicates to them the right lines on which to make a beginning.

Other subjects.

111. I have mentioned the observation and expression lessons first, because they predominate in the infant stages. In standard I reading, writing and arithmetic, with oral composition, drawing, modelling, simple hygiene and elementary drill are added, while in standard II geography is first introduced.

Reading.

112. To illustrate the character of the syllabus under the head of reading, I cannot do better than quote the instructions on the subject for standard I, which runs as follows:—

"The main purpose of teaching to read is to enable the pupils to master printed or written matter for their own information. Silent reading should, therefore, be practised from the first, and the teacher will soon get the children into the way of this, if, to begin with, he gives them short pieces to read and after a little time goes round to the children individually and asks for an account in their own words of what has been read. Such pieces should be full of incident and interest. As regards reading aloud clearness of utterance and fluency should always be kept in view, but it is also essential that children should be taught to read intelligently. The teacher should make the gist of the piece clear before it is read, so that the general meaning may be mastered before it is read out in the class. Without this the reading must be mechanical, because it is unintelligent. It is advisable that the teacher should occasionally read out a passage to the class by way of illustration; but in this case also the class should go through the piece beforehand. The reading material put into the hands of children is of the greatest importance. The Primer should contain nothing which is not written in good language, and in words which will be easily intelligible to all. The arrangement of each piece must be logical, and the language must be good in so far as each sentence must express clearly and straightforwardly the meaning which it is intended to convey. The Primer should contain stories which fall within the range of the children's comprehension and interest; descriptions of the various scenes and episodes of rural life should also be included. Provision should also be made in the Primer for acquainting the children with some of the more impressive stories of English and Indian history. The whole should be written in an easy narrative style. A passage having been prepared beforehand and the difficulties elucidated, the actual reading lesson should be as little as possible interrupted by the teacher, and all long disquisitions on points suggested by the subject-matter should be avoided. At the end of every reading lesson the children should be questioned on the subject-matter individually, and should be trained to give individually in their own words an account of what has been read."

Writing, arithmetic, geography, etc.

113. It is unnecessary to say much on the other subjects of the curriculum; but it may be mentioned that in standard II, that is to say, the standard at which the mass of pupils leave school, the object aimed at is to send away the pupils with their intelligence awakened, with a fair knowledge of the three "R's," and with some acquaintance with weights and measures, land measurements, the village accounts and the ordinary land-record documents with which they will be confronted in after-life.

Urban and rural schools.

114. After protracted discussion it has been decided that it is both impracticable and unnecessary to frame separate curricula for urban and rural schools. In rural areas only a short course of studies will be made compulsory, with optional supplementary courses for those who wish to take them; whereas in urban areas all the subjects will be compulsory. Generally speaking,

it is not in respect of the subjects taught, but of the method of teaching these subjects that any distinction is possible in urban and rural areas. The teaching, in order to be effective, must have reference to the environment of the schools and the scholars. The syllabus makes due provision for this, and so will the text-books which are to be written in accordance with it. One of the great advantages to be gained by this decision will be that the duplication of text-books will be obviated. The enormous difficulty of securing suitable text-books is so well known that it is needless to dwell on the advantages of avoiding unnecessary duplication.

115. As soon as the revision of the vernacular scheme of education, as sanctioned by Government in the year 1901, has been carried into effect as far as the lower primary school courses are concerned, that is to say, up to standard II, similar steps will be taken as regards the courses in the higher standards (III to VI). A committee has already been appointed by Government to deal with this subject and to submit proposals. When the committee has submitted its report, the public will no doubt be consulted in regard to the proposals made, in the same manner as it was consulted concerning the courses of study for lower primary schools. Proposals for the future.

Upper and Lower Primary Examinations.

116. Another cause which has undoubtedly had a depressing effect on primary education has been the abolition of the public examinations held at the end of the lower primary and upper primary courses. I have no wish to suggest a revival of the examinations as previously held with all their attendant evils. I recognise however that the abolition has had at any rate temporarily a very discouraging effect on primary education. The orders of the Government of India, as contained in paragraph 12 of their Resolution, entitled "Indian Educational Policy," of the 11th March 1904, are that there are to be only two examinations preceding the University courses. The first of these, the primary examination, will mark the completion of the lowest stage of instruction, and will test the degree of proficiency attained in the highest classes of primary schools. But it will no longer be a public examination held at centres to which a number of schools are summoned. It will be conducted by the inspecting officer in the school itself. Now, in this Province the first examination is held, under orders passed by this Government in the year 1902, at the end of the middle course, which comprises two classes above the Upper Primary stage. Hence there is no examination of any kind, except the ordinary class examinations, for the mass of boys who do not go beyond the Lower Primary standard, nor even for those who proceed as far as the Upper Primary standard. I am looking into this question and propose to submit a report on the subject to Government. Whatever may be decided in this respect, I am satisfied from enquiries made that the abolition of the examinations for the Lower and Upper Primary standards has withdrawn a distinct stimulus which once existed. As stated above, I have no wish to suggest a revival of the examinations as previously held; but, as at present advised, I do think that it would be desirable to organise a system of leaving certificates for the lower and upper primary standards based on the reports of the school authorities and a private examination conducted in the school itself by the inspecting officer. Such a system could very well be arranged as soon as the inspecting staff is strengthened. Leaving certificates are at present only given at the end of the middle course as a result of the examination which is held at the end of that stage.

The Teaching of English.

117. Instruction through the medium of English and the teaching of English as a language are prohibited in all primary schools; but the teaching of English as a second language is allowed in middle schools in the classes corresponding to the two top classes of an upper primary school. I have discussed certain important questions connected with the teaching of this language in the chapter on secondary education.

CHAPTER VI.

TRAINING COLLEGES AND SCHOOLS FOR INDIAN
TEACHERS.

Training Colleges for Teachers in High and other Secondary Schools.

118. The prime need of the Province under this head is the establishment of training colleges for teachers who impart instruction through the medium of English. The deplorable results of the last Entrance examination have very naturally led to discussion, and a cry has been raised that innocents have been massacred. At the instance of the Principal of one of the colleges of Calcutta, the Senate of the Calcutta University has appointed a committee to examine this question. I cannot say that I anticipate that this enquiry will prove fruitful. The results of the Entrance examination must, for obvious reasons, vary considerably from year to year, and no one has thought it necessary to call in question the work of the examiners in years in which the results have been abnormally good. I do however anticipate good results when the University begin to overhaul High schools under the new regulations, because the investigation thus made must bring forcibly to notice the necessity of securing better teachers in these schools. It is not difficult for those who have personal knowledge of the working of such schools to understand why there are many failures at the Entrance examination. I lately visited an important High school, and found that the Head Master could with difficulty understand English when addressed in that language. This man had to teach the students through the medium of English. Comment is superfluous. If they do these things in a green tree what shall be done in the dry? In making the above remarks I do not wish it to be understood that I am decrying the masters in High and other secondary schools as a body of workers. Many—I might say a large majority—are well educated men interested in their work, while many are devoted labourers. What is wanted however is that teachers should not only be well educated but also be properly trained before they are allowed to take up the important work of secondary education. To this end the Secretary of State has already approved the establishment of a training college for graduates and a normal college for under-graduates for this Province, and it is hoped that this most important project will shortly be inaugurated.

Training Schools for Teachers in the higher classes of Vernacular Schools and the
Vernacular classes of High Schools.

119. As regards the training of teachers for the higher classes of vernacular schools and the vernacular classes of High schools, we are in a far better position. We already have six excellent training schools for the purpose, and we are now establishing a model school of the same kind with provision for a Principal and a Master of Method, both of whom will be Europeans trained in the latest methods of teaching. In addition to his work at the school this officer will supervise the working of the six existing schools above referred to.

Training Schools for Teachers in Primary Schools.

120. Most interesting is the experiment now being made as regards the training of the lowest grades of teachers of the country, that is to say, the teachers of the ordinary village schools. The task is a gigantic one, not only on account of the large number of teachers who require training—some thirty to forty thousand—but also on account of the very poor attainments of the men to be trained. The subject has engaged a great deal of my attention, and I have the satisfaction of being able to say that Government has recently approved several important proposals for improving the training schools for these teachers. The fundamental idea underlying the system hitherto in vogue has been that the teachers of primary schools will not give up their school work during the period of their training and devote themselves exclusively to their training. Hence a system was elaborated according to which training schools were established in the neighbourhood of the teachers

to be trained, the object in view being to attract teachers to the schools during the few spare hours when they were not engaged in their schools. The intention was that after the teachers of a given neighbourhood had been trained, the training school should be moved on to another area, and that the building thus vacated should then be utilised for the purpose of a primary school. The defects of such a scheme are apparent. The teacher, poorly endowed by nature and with the slenderest educational equipment, was expected not only to keep his school going during the period of his training, but also during his spare hours to improve his own general education and learn the art of teaching.

121. The next point in respect of which the scheme was open to criticism was that as long as these training schools were considered to be of a temporary character, it was impossible to spend money on building hostels for the students and quarters for the teachers or to organise any system of nature study in combination with school gardening. These defects will now be rectified. At the same time, in order to compensate teachers for the loss sustained by them in having to give up their school while under training, the amount of the stipend to be held by them during that period will be increased so as to give them a bare means of subsistence. There is ample evidence that the new scheme will be appreciated, and I regard it as one of the most hopeful and useful of the educational projects now in process of development. It is only necessary to add that these training schools will receive for instruction men who wish to become teachers of primary schools, as well as those who have already taken up the profession of teaching.

122. All classes of training institutions for male teachers being considered together, the total expenditure during the year under review amounted to Rs. 1,34,180, of which Rs. 1,19,229 were provided from Provincial Revenues, Rs. 949 from District Funds, Rs. 4,403 from fees and fines, and Rs. 9,599 from other sources. Eight new schools for the training of teachers for primary schools were opened during the year.

Statistics in respect of training schools for male teachers.

Proposed Training Colleges for Female Teachers.

123. I now come to the momentous subject of the training of female teachers—a subject which has been engaging my assiduous attention since I joined the office of the Director of Public Instruction early in the year. There are at the present time in Bengal, as now constituted, more than four million girls of a school-going age. What are we doing to provide teachers for this vast number? Hitherto our work has practically been confined to aiding a few training classes, the best of which are concerned with the training of Christian girls. Now, good though the work done by the Christian Mission Training Schools is, these classes may practically be left out of account, because they provide teachers almost entirely for Christian girls' schools. Moreover, strenuous objection is raised nearly everywhere to Christian women teachers, while even Brahmo women teachers are not by any means universally welcome. The crying want is therefore for good Hindu and Muhammadan female teachers. Speaking of the training that is at present given in the aided training schools, Miss Brock, the Inspectress of Schools, has observed that the opening of proper training colleges in Bengal is, in her opinion, one of the most pressing educational needs of the Province. So strongly does she feel the necessity of such institutions that she does not believe that any material progress can be made until steps are taken in that direction. She adds that the training that is at present being given in the case of Hindu, Muhammadan and Brahmo female teachers is of the poorest description, and that there is extraordinary waste of time, teaching power and money in the process. She observes that Hindus are constantly imploring her to find well-trained teachers, and that the two branches of the Brahmo Somaj are constantly addressing her on the subject of efficient instruction for their women teachers.

The great need for trained teachers.

124. It is not too much to say that the need for properly trained women teachers has now become exceedingly acute. Government has sanctioned schemes for peripatetic teaching by lady teachers. It has also sanctioned a scheme by which girls in villages and towns can be instructed at central gatherings by

lady teachers. The success, however, of these schemes and of numerous others, such as utilising the services of Muhammadan *a'tus* (lady teachers), training the wives of school-masters as teachers, etc., depends upon the question whether the people who are training others to teach are themselves properly taught. At the present time not only are properly qualified teachers not available, but it is impossible to obtain the services of ladies even with the kind of qualifications which we are at present obliged to consider as passable. To cite an illustration of the seriousness of the situation, I may observe that Government lately sanctioned the opening of a Middle English School for girls at Bankipore in order to meet the urgent need felt by the Hindus of that place for the education of their female children. The whole scheme, however, is blocked, owing to the fact that suitable teachers cannot be procured either in Bengal or elsewhere. Again, the Board of Revenue have sanctioned the employment of governesses in Wards' Estates for *parda-nashin* ladies and children; but they are finding the greatest difficulty in supplying the need. In fact we have begun at the wrong end. We have started schemes for teaching without providing for qualified teachers, and we are wasting money and doing much harm to the cause of education by employing unqualified teachers. It is still, however, not too late to make amends for past neglect.

The kind of
teachers required.

125. I will now endeavour to make clear what kind of training we wish to impart. The existing aided training classes for Hindu, Muhammadan and Brahmo girls are not even capable, under present conditions, of turning out teachers qualified to impart a good primary education to girls, while no attempt is being made to train teachers qualified to teach in secondary schools. We may leave alone for the present any attempt to train female teachers who will be able to teach English in high schools for girls. The number of such schools is at present very limited, and the English classes in them are at present mostly staffed by English women. In course of time we shall, no doubt, have to train Indian ladies to teach English; but, for the present, no attempt need be made in that direction. We shall have plenty to do for some time to come if we are to succeed in turning out properly qualified vernacular teachers.

Proposed training
colleges.

126. Deeply impressed therefore with the urgent necessity of establishing thoroughly efficient Government training colleges for women teachers, I have endeavoured to develop, with the aid of influential Indian gentlemen and Government officials, a movement for the establishment of two training colleges, one in Calcutta and the other at Bankipore. The scheme has been provisionally approved by the Government of Bengal, but, owing to financial difficulties, has not yet been submitted by that Government for the approval of the Government of India. Convinced as I am that the future of female education in Bengal very largely depends on the success of this project, and knowing, as I do, that this belief is shared by many who have the cause of female education at heart, I am confident that the time is not far distant when these colleges will be opened. The first step in advance has already been taken, with the approval of the Government of India, in the sending to England of two Indian lady scholars to be trained for two years at an English training college. These ladies, it may be added, have been accompanied by a third Indian lady who intends to undergo a similar course of training at her own expense, so that, on her return to India, she may be able to undertake the training of women teachers for primary schools in Orissa.

Statistics in respect of Existing Training Classes for Female Teachers.

127. During the year under report there were 17 aided training schools with 806 pupils, and 1 unaided training school with 32 pupils; the total expenditure on all the schools being Rs. 68,972, of which Rs. 26,879 were contributed from Provincial Revenues, Rs. 36 from District Funds, Rs. 143 from Municipal Funds, Rs. 2,723 from fees and fines, and Rs. 39,171 from other sources. The comparatively large contribution from "other sources" is chiefly expenditure incurred by the Christian Missions, the good work of which has been mentioned above.

Statistics in respect of Training Schools for Teachers, Male and Female, taken together.

128. Training schools of all classes for teachers, both male and female, being taken together, the total expenditure has increased in the year under report by Rs. 31,903. Schools for males, and male pupils, have increased by 8 and 206 respectively; while, though schools for females have declined by 1, the number of female pupils has increased by 71. The year has been one of progress, but the progress can only be considered as a mere instalment towards what is to come.

CHAPTER VII.

PROFESSIONAL AND TECHNICAL EDUCATION.

Law.

129. There is not much of interest to be said under this head. There is no central law college in this Province, but classes for the purpose of imparting legal instruction are attached to Arts colleges. The chief work in connection with legal instruction is done at the Ripon College, Metropolitan Institution, City College and the Bangabasi College, all of these institutions being in Calcutta. The official verdict hitherto has been that there is very little real teaching in these classes and that "the students rely solely on their own unaided efforts to pass the University examinations, and attend lectures merely for the purpose of obtaining the certificate of attendance which is required by the University." It may also be mentioned that hitherto the students have not usually had access to any law library. The new University regulations, in addition to raising the standard of the Bachelor of Law Degree, make provision for a Degree of Master of Law. They also make it incumbent on every college affiliated in Law to make suitable provision for a law library, so as to enable its students to have access to the reports or other books in which leading cases are to be found. The Law classes have hitherto usually been entirely self-supporting, and in many cases have been regarded as valuable adjuncts to Arts Colleges, because the receipts from them have exceeded the expenditure incurred on them. It remains to be seen how the position will be affected under the new conditions imposed by the regulations. The results of the B. L. examination during the year under review were very poor, only 86 out of 512 candidates, or 16·7 per cent., being successful.

Medicine.

130. It is not clear why the Director of Public Instruction has hitherto included statistics in regard to the Medical College, Calcutta, and the Medical Schools in his reports and commented on the working of these institutions. He has no personal knowledge of the working of these institutions, and any remarks which he makes in regard to them can only be the result of secondhand information. Moreover, this very information, which consists of copies of the reports of the Inspector-General of Civil Hospitals and the accompanying statistics, is, at the time when the Director writes his report, under the consideration of Government. Possibly the retention of these statistics in the Director's report is a survival of the time when he had control of the Medical College and Medical Schools; and in this connection it is interesting to note that lately when examining the old history of the Sanskrit College I found that the first medical teaching given in Bengal was given at that college. On the other hand, if it is considered desirable that the Director should include the statistics referred to in his report, it is not clear why he is not required to include the statistics relating to Veterinary Science, which is included under the head of Professional and Technical Education in the Fourth Quinquennial Review. A similar question will soon have to be considered in regard to Agriculture. At present an Agricultural Department is attached to the Sibpur Engineering College; but, as soon as the Bengal Provincial Agricultural College is opened, the Director of Public Instruction will no longer have any

control over Agricultural education. These questions will be made the subject of a reference to Government, and are only noticed on the present occasion, because I do not understand how I can with any advantage follow the practice hitherto followed in the Annual Report in respect of the Medical College and Schools.

The Sibpur Civil Engineering College.

University regulations as they affect engineering.

131. The recently published regulations of the Calcutta University have in view the following objects as regards Engineering:—

- (1) modernising the Engineering Course,
- (2) affording specialised instruction in
 - (a) Civil Engineering,
 - (b) Mechanical and Electrical Engineering, and
 - (c) Mining Engineering,
- (3) facilitating the affiliation of schools of Engineering up to the First (or Intermediate) Engineering Examination.

The Principal of the Sibpur College anticipates good results from these changes.

Mining instruction.

132. The most important development made at the College during the year under review was the inauguration of classes for students who intend to take up mining as a profession. These classes have already been opened under a Professor of Mining recruited from the University of Birmingham, which is considered to be one of the best, if not the best, centre of mining instruction in England. Further, another Professor has been appointed to instruct persons actually engaged in the mining industry; and four centres of instruction have been selected—two in the Raniganj, and two in the Jheria, coalfield. It may also be mentioned that in addition to the schemes referred to above, a certain number of students from Bengal are each year being sent by the Government of India to go through a course of mining instruction at the Birmingham University. Four such students were sent home in the year 1904 and two in the year 1905.

Mechanical testing.

133. A question of considerable importance was under discussion during the year under review in connection with the establishment at the College of a laboratory for mechanical testing. Work of this nature has been carried on at the College on a small scale for some time past; but the amount of work to be disposed of has increased so largely that a proposal to appoint a whole-time officer to deal with it is now under consideration. It is expected that the chief volume of work will come from Departments of Government; but it is proposed to make the laboratory available to the public, subject to the payment of fees according to a scale to be approved by Government.

Board of Examiners for the College and its affiliated schools.

134. Another important question, which has been under discussion during the year, is a proposal to establish a Board of Examiners for the College and its affiliated schools. Hitherto this work has been done by the Principal of the College and his staff. It is felt that, now that the affiliated schools have increased both in number and importance, it is desirable that the control of the examinations should rest with an independent body of examiners specially selected for their interest in, and knowledge of, the problems with which these institutions have to deal.

Delays in the receipt of apparatus.

135. The Principal (Mr. Heaton) deplures the delays which occur owing to the system in force as regards sending indents for apparatus to England. He observes that such delays hinder research work and often make it impossible; for, having conducted his research to a certain point, and finding a certain instrument indispensable, an officer not infrequently has to throw up his research, knowing that he is not likely to receive the instrument in time for it to be of any use. Similar complaints are also made by Dr. Bose, C. I. E., and Mr. Cunningham, Professors of the Presidency College, who carry on research work. I am decidedly of opinion that the rules are too stringent and that a relaxation is called for in favour of (a) officers engaged in research work and (b) selected officers in charge of important institutions, and I propose to make a reference to Government on the subject.

136. The results of the B. E. and F. E. examinations were satisfactory. In the former the percentage of success was 34·6, as compared with 25·9 and 46·1 in the two preceding years (1904-1905 and 1903-1904); while in the latter it was 53·3, as against 25 and 60·8 in the same years. The attendance at the College (82·2 *per cent.*) was not as good as in the previous year, when it was 92·5 *per cent.* This was owing to the fact that the year under review was a very unhealthy one at Sibpur; the daily average number of students under treatment, chiefly on account of malaria, being 22. The total expenditure of the College was Rs. 1,57,916, of which Rs. 1,29,249 were contributed from Provincial revenues, Rs. 22,405 from fees and Rs. 6,262 from other sources.

Results of
examinations, and
expenditure.

The Bihar School of Engineering.

137. This is an extremely important school, which teaches up to the Overseer standard. It had 171 students on the rolls at the commencement of the session. The Head Master reports that all the students who have passed out of the school in recent years have, as far as is known, easily obtained employment. The great success of this institution renders it likely that, before many years are past, this school will be raised to the status of a College. It is very satisfactory to notice that the establishment of a boarding-house attached to the school has developed in a marked degree a corporate and social life among the students: in this respect the school is a model which many colleges in Bengal could follow with great advantage. The results of the Overseer and Sub-Overseer examinations were satisfactory, 10 out of 13 students sent up passing by the former, and 20 out of 32 students sent up passing by the latter, examination. Expenditure increased from Rs. 27,616 in the year 1904-1905 to Rs. 34,311 in the year under review. Of the last-named sum Rs. 29,222 were contributed from Provincial revenues and Rs. 5,089 from private sources.

The Cuttack Survey School.

138. This school at present turns out Surveyors and men of the Amin class. It is in contemplation however to raise its status to the Overseer standard at an early date, and for this purpose a considerable sum of money has been raised locally.

Preliminary technical education in schools.

139. In certain selected High Schools the course of studies in the two highest classes is arranged so as to lead naturally to the instruction provided in technical schools which prepare students up to the Sub-Overseer standard. The results hitherto attained have been very disappointing. These classes, as well as all aided technical and industrial schools, are under the inspection of the Principal of the Sibpur Engineering College. It is generally thought that the time has now come when a special officer should be appointed to inspect, foster and develop technical and industrial education throughout the Province; and proposals to this effect are under discussion.

Draftsman Classes.

140. A strong need having been felt for the establishment of classes for draftsmen, steps were taken during the year under review, with the help of representatives of leading Railway Companies and Engineering firms, to establish such a class; and it is hoped that the scheme will be brought into operation during the current year.

Motor Car Driver Class.

141. At the instance of the Automobile Association of Bengal a scheme is under the consideration of Government for the establishment of a class at the Sibpur Engineering College with the object of giving to men intending to become drivers of motor cars a mechanical training such as will enable them to execute all ordinary repairs.

Industrial Chemistry.

142. In order to meet the growing industrial needs of the Province a scheme is under consideration for the establishment of classes for imparting instruction in Industrial Chemistry at the Sibpur College. The details of the scheme have still to be worked out.

Agriculture.

143. A class for instruction in Agriculture is attached to the Civil Engineering College, Sibpur. The course extends over a period of two years. Out of 11 students who were presented for the diploma examination, 7 were successful; while all obtained immediate employment under Government. This class will be transferred to the Provincial Agricultural College as soon as that institution is established.

Commercial Classes.

The new scheme of commercial education.

144. A new scheme of Commercial Education, which was elaborated in consultation with the Bengal Chamber of Commerce and the Bengal National Chamber of Commerce was inaugurated at the Presidency College on the 1st July 1905. The scheme consists of two parts, the one comprising a day course, every part of which is obligatory, extending over a period of two years, and the other a series of evening lectures on certain subjects, any one or more of which may be selected at option. The following are the subjects prescribed for the day course:—

- (i) English (modern), and especially English correspondence, including commercial correspondence, letter-drafting and *précis*-writing;
- (ii) arithmetic, including commercial and mental arithmetic;
- (iii) one of the following languages, namely, Bengali, Hindi, Urdu, Uriya, French, German or Latin;
- (iv) one of the following subjects, namely, book-keeping, shorthand-writing or type-writing; and
- (v) commercial history and geography.

The following are the subjects prescribed for the evening course:—

- (i) outlines of political economy;
- (ii) banking and currency;
- (iii) commercial and industrial law;
- (iv) annuities and insurance;
- (v) book-keeping;
- (vi) shorthand-writing;
- (vii) type-writing; and
- (viii) English (modern).

It is too early yet to judge how far this scheme will prove effective and adequate. The day course is the principal one; and, as stated above, it extends over two years. The first examination of students under the new scheme for the day course will therefore not take place till April 1907. The evening classes have hitherto not proved a success, and in fact it is doubtful whether in this climate such classes can be expected to achieve results such as are obtained in Europe. The immediate need in respect of these classes is to remove them from the Presidency College, where they are cramped for room, to the business part of the city. It is unreasonable to expect business men after a long day's work to travel any considerable distance for the purpose of attending the evening classes.

higher commercial education required.

145. The commercial education provided at the Presidency College aims only at turning out men qualified to be good clerks. If the present scheme proves a success, it will obviously be necessary to provide before long for a superior commercial education such as will fit a man to conduct a business on his own account. Meantime, the proposal recently made by the Government of India to send scholars to England for an advanced course of commercial education will meet a distinct want in this Province.

higher commercial education.

146. Commercial education is also provided at the Kurseong Victoria Boys' School and at several Government and aided high schools. In the case of the latter schools the course of study leads up to the day course prescribed for the commercial classes at the Presidency College. Besides the above mentioned schools at which commercial instruction is given, there are three privately managed commercial schools, one aided and two unaided which teach shorthand and type-writing.

The Calcutta Art School and Art Gallery.

147. At the instance of Mr. Havell, the Principal of the School of Art, a Japanese artist of the Tokio Art School was engaged temporarily during the year under review to give lessons in the Japanese method of brush work and flower painting. The class in the school which gives the most promise is the Advanced Design Class. It is hoped that students from this class will be able to undertake the decoration of the new Art Gallery building which is now in process of construction. Pending the completion of the building referred to, the collection of Indian paintings belonging to the Art Gallery is stored in the Art School premises. These paintings were inspected during the year under review by a party of Japanese artists and Art experts, who declared them to be the best collection of Indian paintings to be seen in India. The increase of expenditure during the year under review (Rs. 21,464), shown under the head of "Schools of Art," was due to large purchases made for the Art Gallery of old Tibetan banner pictures, Buddhist statues, valuable textile fabrics, etc. Some of the inscriptions on the statues and paintings are said to be of considerable archæological interest.

The Serampore Weaving School.

148. The Government of India have sanctioned the opening of a Weaving School at Serampore, and it is hoped that it will be possible to commence work in the coming cold weather. The object of the scheme is, firstly, to bring home to the ordinary artisans the latest improvements in respect of weaving apparatus, and, after supplying them with the necessary instruction, to give them advances of money in order to enable them to purchase the necessary apparatus; and, secondly, to train a higher class of students with the object of enabling them to become teachers of improved methods in outlying centres or to start businesses of their own in the weaving line.

Industrial Schools.

149. These schools have increased in number from 30 to 41, chiefly owing to the activity displayed in this connection in the district of Hazaribagh by the present Deputy Commissioner, Mr. Radice. As stated above a special officer is required for the effective supervision of technical and industrial education. The example set by Mr. Radice in Hazaribagh shows how quickly this branch of education could be developed if there were an officer whose whole time could be devoted to the subject. I regard this as an essential step towards future progress. The total expenditure increased from Rs. 32,586 to Rs. 36,853. Of this latter sum, Rs. 7,954 were contributed from Provincial Revenues, Rs. 6,745 from District Funds, Rs. 314 from Municipal funds, and Rs. 21,840 from fees and fines and other sources.

CHAPTER VIII.

EDUCATION OF INDIAN GIRLS IN SECONDARY AND PRIMARY SCHOOLS, AND ZANANA EDUCATION.

General Remarks.

150. So preponderating is the need for trained female teachers that though I have expressed my views on the subject at length in the chapter on Training Colleges and Schools, it is impossible to avoid a reference to the same subject when considering the question of the education of girls in secondary and primary schools and the zanana. It is very generally admitted that there is an urgent need for training colleges in Bengal. A criticism has however been made in this connection that "it is only in higher schools and in large towns that the need for well-qualified female teachers is so pressing, and that for many years to come such luxuries will have to be dispensed with in the upper and lower primary girls' schools, where use must yet be made of the local *guru* or *pandit*." Now, though it is undoubtedly true that we cannot for many years to come dispense with the local male teacher, and that a large extension of the system of mixed schools is very desirable, I cannot at all admit that the urgent need

Need for trained female teachers.

for well-qualified female teachers is by any means limited to the higher schools and to large towns. In the first place, there is a very general and marked aversion on the part of a large proportion of the population to sending girls to school at all, not because the people are indifferent to the education of their female children, but because they do not like sending them to schools where there are male teachers, that is to say, schools where the *pardah* is not observed. In the second place, even if girls are allowed to go to school, they are, for the reason just given, removed from it at a very early age. Thirdly, if we are to instruct girls only up to the age when they are removed from school, I fear that our efforts will be largely wasted: the little instruction thus given is soon forgotten. I hold that the education of girls should not be abandoned at this early age, but should be continued in the *zanana*. Here we are immediately met face to face by the most pressing need for female teachers; and, if good results are to be secured, these teachers must generally be neither Christians nor Brahmos, but Hindus and Muhammadans. Christian Missions have doubtless done much good work, and Government is greatly in their debt for what they have effected in the way of popularising female education and sending out Christian female teachers. The Missions themselves would, however, be the first to admit that their sphere of usefulness as regards the development of this branch of education is not unlimited.

General review of
the education of
women.

151. Referring to the want of progress in respect of the education of women in Bengal in the last quinquennial period (1897-98—1901-02), Sir Alexander Pedler observed:—

"The chief causes for the slow progress of this branch of education in this country are:—(1) The conservatism of a great portion of the people; (2) the fact that the education of their female children is a matter of great indifference to a large proportion of parents and guardians, as they usually do not take the same amount of care and interest in the education of their female wards as they do in that of boys; (3) the system of early marriage which presents an almost insurmountable barrier to education beyond the primary stages; (4) the want of educated female teachers; (5) the want of a system for educating *zanana* ladies; and (6) the want of adequate State aid and aid from other public funds."

152. Without wishing to dispute the large measure of truth contained in these observations, I am distinctly of opinion that they do not constitute quite a complete, or in some respects fair, account of the position. I quote below what Miss Brock, the Inspectress of Schools, said in her report for the year 1904-1905:—

"I found from visiting *zananas* and from the expression of native opinion that there was no prejudice against the education of girls, but a strong feeling against any relaxation of the *pardah* system for higher caste girls. In support of this is the fact that recently a meeting was held at Muzaffarpur of the more educated classes, with a view to opening a strictly *pardah* school for Hindus. In some parts of Bihar education would be welcome did it not bring with it the presence of male officials. What is needed is a far greater extension of the *zanana* system of teaching for higher caste girls as a preliminary step to schools, and for lower class girls strictly *pardah* schools. These would of necessity have to be wholly inspected by women."

153. I also give below some very interesting extracts from that lady's report for the year 1905-1906:—

"The most important question in relation to female education still remains the problem of obtaining and adequately training teachers. Only as regards the staffing of Mission Schools is the outlook at all promising. As regards Hindu, Muhammadan and even Brahmo schools, the difficulty remains unsolved."

"As regards *zanana* teaching I am obliged to draw a sharp distinction between Hindu and Muhammadan work. I am quite convinced that as soon as we can command trained female teachers, orthodox and of good family, education will make remarkable progress among Bengali Hindu *pardah* women. I am repeatedly struck by the fact that in large towns Hindu gentlemen are in the habit of trying to induce European ladies to give instruction, including teaching in English, to their girls, and are often willing to pay good fees. On the other hand, even entrance into Muhammadan *zananas* is very difficult, and the education of women is regarded with extreme suspicion."

"In the immediate future, if adequate assistance is afforded, I anticipate a great increase in the number of girls' schools. From month to month it is increasingly impressed upon me that many of the supposed difficulties with regard to Hindu female education do not exist, and that the real obstacles we have to encounter might be overcome by a more intimate knowledge of Indian social life as it affects women. A very large number of Bengalis would not oppose female education were it offered in a form which would be acceptable. This was the opinion I stated a year ago. During this past year this view of the matter

has been expressed to me again and again by Indian gentlemen. In the work of understanding local needs I consider the work of women assistant officials would be invaluable and can only be afforded by them. As regards higher caste girls the way to them lies through *zanana* teaching, and one of the most promising points of female educational work is the impetus that is being given to this method of teaching

"As regards primary schools under Mission management endeavour is being made to draft untrained members of teaching staffs into good training classes and to staff primary schools entirely with trained female teachers. I have good hopes that in Calcutta at all events before long both these objects will be attained in these schools. Primary schools under Hindu management still continue to be, for the most part, in the hands of *pandits*, but the request is everywhere being made by them for a competent female teacher to be added to the staff. The difficulty in meeting this demand is however very great, even when the teachers are forthcoming. Christian and Brahma girls, where accepted, demand high salaries and for the most part will not work in the districts and in primary schools. Should the Government training colleges be started, one of the greatest difficulties will be to induce the girls after a training in Calcutta and Bankipore to return to the village primary school. If Hindu and Muhammadan women however are secured the difficulty will vanish. They will expect to return to their own villages or towns"

"I have this year seen more of Muhammadan schools and come more into touch with Muhammadan *zanana* life. Education both in the schools and in the *zanana* is of the most meagre description. In the former this is undoubtedly due to the early age at which girls are withdrawn, not for marriage, but within the *pardah*: in the latter it is owing to the almost utter lack of training and education in the teachers. From what I have observed I consider that in the case of Muhammadans the work has not yet been attempted on the right lines for success. The majority of Muhammadans will no doubt for years to come view the movement for the education of women with dislike; but that will be no bar, if certain conditions are allowed, to the progress of education both in the *zanana* and the school. Muhammadan schools must be altogether *pardah*, and all local male officials entirely withdrawn from the schools. A conveyance grant for the schools is necessary if high class Muhammadan girls are to be secured. Women of good family must be obtained as teachers for the schools, but above all for the *zanana*. These teachers must be able to speak good Urdu. Lastly, one of the most important points is, I consider, the giving of certain concessions with regard to the curriculum. The text books above all should be such as are acceptable to the Muhammadans. I am convinced that if we could obtain teachers capable of giving an acceptable course of instruction, a large number of *zananas* would be at once accessible."

154. I think that Miss Brock's remarks throw a great deal of valuable light on a most difficult question. It seems to me that if the education of women is presented, as Miss Brock says, "in an acceptable form" "the conservatism of a great portion of the people" which was referred to by Sir Alexander Pedler as being the first cause of slow progress, would gradually be won over to the side of progress. Miss Brock's report also shows—and enquiries made by me corroborate her view—that the people are not so indifferent to the education of their female children as is usually supposed: there is a considerable awakening in this respect. This was the second cause referred to by Sir Alexander Pedler as hindering the progress of female education.

155. The third cause assigned by Sir Alexander Pedler for the want of progress was the system of early marriage, which he stated presented an almost insurmountable barrier to education beyond the primary stage. My reply to this is that the barrier itself will yield to the influence of education. It has already done so in the case of the Brahma community, whose girls marry later in life and consequently attend school longer than Hindu and Muhammadan girls. Most instructive in this respect are the remarks made by His Majesty's Agent and Consul-General in Egypt in his Administration Report for the year 1905, from which I quote the following passage:—

"The remarkable and continuous progress of female education in Egypt marks very clearly the changes of custom and alteration of ideas which are taking place in the country. When the first efforts to promote female education were made, they met with little sympathy from the population in general. Parents sent their daughters to school reluctantly, and took them away early. In order to encourage the education of girls, it was necessary to admit a large number of free pupils. Most of these came from the poorer classes, and left early, either to be married or because it was thought unbecoming for a girl to attend school after she had passed the earliest years of childhood. The reluctance of parents to send their daughters to school has now been largely overcome. Free education in the Government Primary Schools has been practically abolished. Demands are frequently made for the establishment of other schools in different parts of the country. The number of private schools for girls has also greatly increased of late years. Further, it is to be observed that the steady output of boys from the Secondary Schools and Higher Colleges has distinctly

stimulated the movement for female education, for the younger generation are beginning to demand that their wives should possess some qualification other than those which can be secured in the seclusion of the harem. The interaction of the two branches of education does not stop here, for not only has the growth of education among boys stimulated the desire for instruction to girls, but it has also tended to improve the quality of education given to the girls by prolonging the period of instruction. There appears good reason for supposing that, where education has made progress, the age of marriage has risen, and that, in consequence, the girls are allowed to remain longer than heretofore at school."

156. I invite particular attention to the last sentence of the quotation just given. Surely Egypt and India are not so different that it is unreasonable to expect that, where education makes progress, the age of marriage will rise, and that in consequence girls will be allowed to remain longer than heretofore at school.

157. Three further causes were given by Sir Alexander Pedler as presenting a hindrance to the progress of the education of women, viz., (1) the want of educated female teachers, (2) the want of a system of educating *zanana* ladies, and (3) the want of adequate State aid and aid from other public funds. Sir Alexander Pedler stated however that a considerable increase in the expenditure had been incurred in recent years, and that more energetic measures were being taken to foster the spread of female education. I have also shown in this report that active steps are being taken to supply the need of trained female teachers both for girls' schools and for the *zanana*.

158. To sum up the matters above discussed, I venture to say that, as far as Bengal is concerned, the chief cause at the present time operating to hinder the progress of the education of women is the want of qualified and respectable Hindu and Muhammadan female teachers and inspecting agents, and the consequent inability to organise the kind of schools or the type of *zanana* education which the people require. We still want money of course, but it is not immediately so much needed for increasing the number of schools for girls and *zanana* centres of instruction as for producing suitable teachers. Given these, I feel that a vast field lies ready for exploration. I have ample evidence of this in the various schemes for imparting instruction to females which are being put forward.

159. One of the most hopeful is a project which has been quite recently brought forward by Mrs. Roy, wife of Dr. P. K. Roy, late of the Indian Educational Service. This is a scheme for the award of scholarships and rewards with the object of encouraging instruction in the *zanana*. Committees of ladies, European and Indian, assisted by advisory Committees of men, are to be formed at suitable local centres. These Committees will work out syllabuses of instruction suitable to the various classes of the community and frame scales of scholarships and rewards. It is said that a system of this sort was widely in vogue and very popular some years ago in the Dacca Division, but that it eventually languished owing to want of encouragement by Government. An indirect, but very substantial, by-product of this project will be the formation of the committees referred to. Such committees will not only be useful for the purpose of the project above sketched, but will also be of great value in other directions, such as helping and advising in the work of local girls' schools, aiding and encouraging *zanana* instruction of all kinds, helping the female inspecting agency as regards their work in training classes and the selection of teachers for training, etc., etc. I regard this latest development as most hopeful.

160. In short, the direction which progress must take must not be antagonistic to the conservative instincts of the people with which sympathy must be shown. Our policy must not be destructively radical but progressively conservative. We can only advance by devising measures which are not inconsistent with prescription, to which in the past insufficient concessions have been made. We should not run amuck against tradition, but should carry tradition with us on the lines of progress.

Statistics in respect of secondary and primary schools.

General statistics.

161. During the year under review secondary and primary schools for girls taken together increased from 2,563 to 2,877, and students in such schools from 61,432 to 67,755, that is, by 12·3 and 10·3 *per cent.*, respectively. If the number

of boys in girls' schools be deducted, the actual figure as regards girls in girls' schools comes to 65,632, as against 59,034 in the previous year, the percentage of increase being 11.15. In addition to the 65,632 girls in girls' schools, there were 43,446 girls in boys' schools; the total of girls under instruction being 109,078, as against 102,546 in the previous year, and the percentage of increase being 6.37. One in every 36 girls of a school-going age, or 2.7 *per cent.*, was under instruction, as against 1 in every 58, or 1.7 *per cent.*, at the close of the last quinquennial period. It may be explained in this connection that each centre where *zanana* instruction is imparted is counted, for the purpose of the statistical returns, as a primary school and the girls under instruction as students in such schools. In future, however, I shall show figures for *zanana* education separately in the returns.

162. Almost all the girls under instruction were in the primary stage of instruction. Thus, of the total number of schools for girls (2,877) all except 34 were primary schools; and of the total number of girls under instruction (109,078) all except 402 were in the primary stage.

Distribution between the primary and secondary stages of instruction.

163. Expenditure in connection with secondary and primary girls' schools increased by Rs. 42,791; and of the total expenditure incurred, viz., Rs. 3,99,837, Rs. 1,17,031 were contributed from Provincial Revenues, Rs. 69,753 from Local Funds, Rs. 46,440 from fees, and Rs. 1,66,613 from other sources.

Expenditure

164. The results of the examination held at the end of standard VI were satisfactory, 66 candidates appearing, of whom 52 passed, as against, in the previous year, 64 candidates, of whom 49 passed. There are no formal examinations at the end of the upper primary and lower primary courses, as explained in the chapter on "Primary Education for Indian Boys"; but the class examinations held at the end of these stages show a large falling off in the number of candidates appearing, with, however, a large increase in the percentage of successful candidates. The combined figures for these two stages show that, whereas in the year 1904-1905 of 2,098 candidates 1,358 were successful, in the year under review of 1,595 candidates 1,297 were successful. The general causes for the unpopularity of these examinations have been discussed in the chapter above quoted.

Results of examinations.

Technical and Industrial Training.

165. Very little technical and industrial work for women is at present aided by Government, but a comparatively large amount is being done in different parts of the Province, chiefly by Mission agencies. The lace-industry at Kalimpong, which is aided by Government, is already a success, and it is proposed to extend it to parts of the Chota Nagpur Division and the Sonthal Parganas. The work requires fostering, and when our female inspecting staff is increased, this will be possible.

CHAPTER IX.

EUROPEAN EDUCATION.

Introductory.

166. The term "European," as used in this chapter, signifies any person of European descent, pure or mixed, who retains European habits and modes of life; and for the purpose of the grant-in-aid rules all except 15 *per cent.* must answer to the above definition.

The term "European."

167. Although the Partition was given effect to from the 16th October 1905, European education in the Divisions transferred to the new Province remained in charge of the Bengal Education Department till late in the year under review. As a result of the separation of these Divisions this Province has lost 6 schools. This report primarily concerns the schools which are left with this Province, but the statistics given in respect of the annual examinations concern candidates from Bengal and Eastern Bengal and Assam, inasmuch as these examinations were held for both Provinces by the Bengal Education Department.

The Partition.

Collegiate Education.

168. Collegiate education for Europeans is practically non-existent. Loreto House, Calcutta, which has University classes attached to it, returned only one student. The Bethune College for ladies returned two European students.

Schools.

169. This report deals with 69 schools, of which 2 are managed by Government, 62 are aided and 5 are unaided. It is much to be regretted that the Inspector has failed to secure returns from the Armenian College, which is not included in the 5 unaided schools above referred to. The Armenians, though a small community, form an important element in the complex society of Calcutta, and the education given at the college is not a matter of indifference to Government. Of the 69 schools referred to, 44 were secondary, and 25 primary schools. Of the 44 secondary schools however only 14 taught up to the high school stage, the rest being middle schools.

Pupils.

Educational institutions of all kinds.

170. The total number of pupils in educational institutions of all kinds for Europeans was 7,925, of whom 801 were in institutions managed by Government, 6,782 in aided institutions and 842 in unaided institutions. In addition, there were 209 European pupils studying in institutions for Indians. These pupils are not however included in the statistics dealt with in this chapter, which refers solely to institutions for Europeans and pupils of such institutions.

Secondary and primary schools.

171. The total number of pupils undergoing general education in secondary and primary schools on the 31st March 1906 was 7,803, as against 8,286 on the 31st March 1905. If however allowance is made for the transfer of 6 schools to the new Province and for the fact that the Armenian College has submitted no returns, there appears to have been no loss, but a gain of some hundred or more pupils. Of the 7,803 pupils referred to, 2,098 were in the secondary, and 5,705 in the primary, stage of education. Of the 7,803 pupils above referred to, 7,133 were of European, and 670 of Indian, parentage.

Secondary and primary schools and scholars according to management.

172. Of the 7,133 European pupils in secondary and primary schools 57.17 per cent. were in schools controlled by the Roman Catholic Church; while 28 out of the total number of 69 schools, or 40.6 per cent., were under the management of that Church. Next comes the Church of England with 17.28 per cent. of the total number of pupils and with 11 schools out of the total number of 69. It is interesting to note on the other hand that the census figures show that out of the total European population 51.4 per cent. belong to the Anglican Communion, and 36.2 per cent. only to the Roman Catholic Church. These figures are to some extent vitiated by the inclusion in the census figures of the British forces; but it is well known that a large number of Protestant children study in Roman Catholic schools.

Finance.

Unreliability of accounts.

173. The total expenditure amounted to Rs. 14,15,562, of which, according to the returns submitted, Rs. 3,43,683 were derived from Provincial Revenues, Rs. 2,754 from the Calcutta Corporation, Rs. 6,80,325 from fees, Rs. 2,44,812 from subscriptions and donations, and Rs. 1,43,988 from endowments and other sources. I regret to say however that the figures returned for subscriptions and donations are totally unreliable. It is needless in this report to enter into details, but it may be stated that the amount reported under this head is probably at least a lakh of rupees in excess of the amount actually contributed. On the assumption that that is the case, it appears that not much more than about Rs. 1,00,000 were subscribed by the general public; for, included in the figures under this head, are sums of Rs. 30,451 received from the Bruce Institution for the maintenance and education of its wards and Rs. 9,230 paid by Railway Companies in grants to Railway schools. As an illustration of the general unreliability of the returns, I may mention that the expenditure returned under the head of

"Boarding Charges" has declined by Rs. 1,59,302, whereas no material change of circumstances has in fact occurred. The decline is apparently to be accounted for by the vagueness of the information received from the schools and by the absence in the Inspector's office of any settled principle for the distribution of the expenditure among the various heads of the statistics. This unsatisfactory state of the returns will continue till all school accounts are kept in some rational way common to all and audited by some one who has an expert knowledge of account keeping. This question, together with that of a proper system of auditing accounts, was discussed by the Hill Schools Committee in their report, and the subject is engaging the attention of the Government of India. Meantime, I have with the assistance of Mr. Chapman, lecturer for the Commercial classes, Presidency College, had a modified form of return prepared, which is under consideration.

174. The total expenditure returned last year was Rs. 14,50,414. The Total expenditure for the year under review being Rs. 14,15,562, the decrease amounts to Rs. 34,852. This decline is attributable to the transfer of 6 schools to the new Province and to the fact that returns have not been received for the Armenian College this year.

Examinations.

175. The results of the examinations could scarcely be worse. Of 74 candidates that appeared at the High School and Scholarship Examination 20, or 27 per cent. only, passed. At the Middle School examination, of 81 candidates who appeared 14, or 17·2 per cent. only, passed. The position perhaps becomes still clearer when it is stated that of 49 boys who, having completed their education, were sent up for the Middle School examination before being sent out into the world, only 5, or 10·2 per cent., were able to pass. It is true that owing to the fact that several schools now take the Cambridge University Examinations, some of the best teachers in European schools are now available as examiners, and this circumstance may have led to a raising of the standard. The fact however to be faced is that the verdict of a specially able body of examiners has been most unfavourable. A certain amount of good work was shown in arithmetic, and this mostly by boys; otherwise the results of these examinations seem to bear out the truth of the following remark made by the Inspector in his report for 1904-1905:—"A certain amount of proficiency is obtained by boys in elementary arithmetic. With this exception the work is poor and slovenly to a degree." I reserve my remarks as to what can be done to set matters right to a later part of this chapter.

176. La Martinière College, Calcutta, for boys and girls, the Diocesan Girls' School, Darjeeling, and the Pratt Memorial School, Calcutta, did well at these examinations. La Martinière secured 2 passes at the Senior Local, 9 at the Junior Local, and 18 at the Preliminary Local, examination.

177. From Loreto House 2 candidates passed the Entrance Examination, while from St. Xavier's College 9 were successful.

The training of female teachers.

178. The attempt to train female teachers at Kurseong and at the Welland Memorial Kindergarten, Calcutta, has up to date been a dismal failure. The mistake has been made of endeavouring to train students as teachers with inadequate and insufficiently qualified staffs. At Kurseong the staff employed has been neither adequate nor sufficiently qualified, and at the Welland Memorial Kindergarten the conditions of work are quite unsuitable. The mistake is being rectified, but much valuable time has been lost. It is now proposed that a separate training college should be established at Kurseong with an adequate staff, and that in future the least qualifications that members of the teaching staff shall possess shall be those of a person who has not only had a secondary school education and secured a University degree, but who has in addition had some experience on the staff of a secondary school. As students have not hitherto had a fair chance, I refrain from giving details in regard to the depressing results hitherto obtained. We are, I believe, now upon the right path.

Departmental
examinations.

The Cambridge
Local Examinations.

Calcutta
University
Entrance
Examinations.

Professional and Technical Education.

The Sibpur
Engineering
College.

179. Engineering is one of the best openings for European boys. On the 31st March 1906 there were 47 such boys at the Sibpur Engineering College, viz., 4 in the Engineering, and 43 in the Apprentice, Department. One European passed the B. E. Examination and two the First Examination in Engineering. Four Europeans passed the overseer, and 4 the sub-overseer, examination; while 2 passed the survey final examination.

Victoria Boys'
School, Kurseong.

180. Twelve boys were under instruction in the technical classes which are attached to the Victoria Boys' School, Kurseong. Five boys were sent up for the last sub overseer examination of the Civil Engineering College, Sibpur, this being the first batch of candidates presented from this school. The result of the examination was satisfactory. Out of the 5 candidates sent up, 3 were successful, one obtaining the first place on the list, while the other two stood 7th and 16th respectively. The failure of the two remaining candidates was reported to have been due to their having contracted a severe type of the fever while going through their practical training in surveying in the Darjeeling Terai in November 1905. Orders have since been passed that in future the survey camp is not to be held in the Terai.

The East Indian
Railway Technical
School.

181. The East Indian Railway Technical Night School at Jamalpur continues to give instruction in steam engine and machine construction, applied mechanics, algebra and mensuration, and it is reported that it is proposed to extend the work of the school. The average nightly attendance at this institution during the year under review was 51.3.

St. Andrew's
Colonial Homes,
Kalinpong.

182. St. Andrew's Colonial Homes, Kalinpong, give a certain amount of training in carpentry and farm work. Both boys and girls are trained to domestic work by being made to do all the work which is required for the management of the Homes.

St. Helen's
Convent,
Kurseong.

183. At St. Helen's Convent, Kurseong, there is a well equipped department for instruction in cookery, needle-work, dress-making, sick-nursing and the compounding of medicines. It is to be regretted however that though girls are willing to join the Technical Department, they are not as a rule inclined to devote to it time or attention sufficient to enable them to master any single subject. In order to meet this defect orders have recently been issued that no Government grant will be paid on account of any student of this department who has not attended 75 per cent. of the total number of school meetings held during a school session.

Other schools for
girls.

184. Some other schools for girls attempt a certain amount of instruction in cookery and dress-making, but in all this technical work for girls there is a lack of organisation and definiteness of aim which deprives it of a great deal of its value. In order to meet this evil it is proposed to open at the suggested Training College for female teachers at Kurseong a Technical Department for the training of a small number of teachers in Technical subjects.

Commercial
education.

185. A commercial class was opened at the Kurseong Victoria School for Boys at the beginning of the current session (1906) with a master specially recruited from England for the purpose. Commercial education of an elementary character is also given at several other schools. The work suffers however from lack of organisation and supervision. I shall endeavour to arrange some system of general control, as I have already done in the case of commercial classes in Indian schools.

Volunteering.

186. Eleven hundred and fifty-four cadets became efficient during this year.

General Remarks.

187. Last year when reporting on the general condition of European education in Bengal the Inspector spoke in no doubtful terms of its unsoundness and urged the unwisdom from a political point of view of allowing this unsoundness to continue. In reviewing these remarks the Government of Bengal stated in its Resolution that the political consequence of such a state of things could not be regarded with indifference; because, restricted as Europeans and Eurasians are in their choice of the means of livelihood, their educational fitness is a matter of great importance. The picture

presented by the various facts recorded in this report is, except in the case of a few superior schools, gloomy indeed from almost every point of view. Other features of the problem which have not been referred to are equally discouraging. Some of the leading schools of the Province are still struggling under a burden of debt which makes any real progress impossible. Many are working in buildings which are admittedly quite unsuitable, while all practically are striving to accomplish tasks for the performance of which their resources are inadequate. Inspectors have told us that the work of the schools is bad and employers of labour have testified to the truth of this criticism. Three years ago a partner of one of the leading Engineering firms of Calcutta stated before the Hill Schools Committee that in his opinion European boys educated in India never had more nor better opportunities of getting on if they would only apply themselves to work and take advantage of their opportunities. Then, after pointing out that an engineering firm most emphatically does not expect boys to come to it technically trained, he declared that, in spite of their opportunities, European boys educated in India did not get on in Engineering work owing mainly, he thought, to their total ignorance of elementary practical mathematics and geometry and their hopeless want of application.

188. The question is what is to be done. To my mind the answer is clear. We must have a better scheme of work and better teachers. I am thankful to be able to say that, dark as the past has been, the future is not without hope. We have now attained to a position from which, if we will use our eyes, we can see the goal which we wish to reach and at the same time make out the paths which, if we follow them consistently, will lead us to it. Last year the Government of India, in returning to Local Governments the Revised Code of Regulations for European Schools, expressed themselves as dissatisfied with the curriculum laid down, and desired Local Governments to examine it with a view to its consolidation in the various classes of schools. This letter was sent to the Inspector of European Schools, who submitted in reply an exhaustive criticism of the present system, in which he pointed out that under present conditions only one class of school is recognised, and that the only difference between such divisions of schools as do exist lies in the fact that certain schools are permitted to take the whole of what purports to be a complete school course, whereas others are only allowed to take certain parts of it. Now, if only one class of schools is recognised, it is obviously futile to attempt to consolidate the courses in various classes of schools. Consequently, Mr. Hornell first of all suggested how in his opinion schools should be classified; and, having laid down the principle that, for the future, recognition should mean recognition as a school of a certain class, he proceeded to make proposals for the curriculum of each class. Mr. Hornell's proposals were then placed before a representative conference of school managers, teachers and others interested in European education. The classification proposed by him the conference was not prepared to accept; his criticisms it did not attempt to gainsay. It accepted the principle that European schools should be classified into elementary and secondary; and, having laid down two excellent curricula, one for elementary and the other for secondary schools, it proposed that under ordinary circumstances no school should be recognised either as an elementary or as a secondary school unless it could show that it could teach efficiently the whole of the curriculum prescribed. It further agreed that any school applying for recommendation as a secondary school should in the first instance be inspected by a board of three Inspectors, of whom the Inspector of European Schools should be one. The proposals put forward by the conference have since been referred to Government for orders.

189. In these resolutions of the conference, it appears to me, lies the hope of the future. We can make no advance until we know first of all what we desire to teach and secondly what schools there are which can impart this instruction. To the first stage we may claim to have attained when the conference unanimously proposed curricula for elementary and secondary schools which from an educational point of view leave practically nothing to be desired. To the second stage we cannot hope to attain until we learn from a competent authority what schools can teach the secondary, and what schools can teach the elementary, curriculum. This information we may hope to get when the proposed Board of Inspectors has done its work.

190. When the real facts are before us and when the defects are laid bare we cannot of course stop. On the contrary it is at this point that the work of reconstruction must begin, and the lines on which that work will have to proceed will be the raising of particular schools to a condition in which they will be able to undertake efficiently the work which in the interests of the community in general it is incumbent on them to attempt. The extra expenditure incurred will probably have to be borne very largely by the State, and it is fortunate that we have already begun to receive the necessary pecuniary assistance from the Government of India. It will obviously be impossible to raise at once all the schools which require assistance. This being so, complaints may perhaps arise that this policy is likely to prove in actual working both invidious and unfair. I have little doubt, however, that if the Education Department proceeds tactfully and fairly, with due regard to the needs of the community as a whole and to vested interests, the Managers of European schools in Bengal will gladly sink to some extent their individual ambitions for the good of the general cause. The Government of India have recognised the advisability of giving State assistance on the basis of the particular needs of individual schools. In Article 38 of the Revised Code they have empowered Local Governments to make supplementary grants to schools for the efficient maintenance of which the ordinary grants are not sufficient. No one who has followed the history of European education in India will question the justice or the wisdom of this principle. It must never be forgotten that though the responsibility of the British Government in the matter of the education of the domiciled European community is great, the resources which it can apply to this work are necessarily small; and that therefore while Government cannot allow the boys and girls of the European and Eurasian community to be educated in schools which are through lack of resources unable to undertake efficiently the work which they are attempting, it cannot afford to spend on any school a single rupee more than that school actually requires.

191. Having decided what secondary and what elementary schools we want, and having ascertained clearly how far and in what particulars the existing schools fall short of our requirements, we shall begin the work of reconstructing individual schools on the basis of these considerations. An efficient teaching staff will be everywhere the first consideration; and, as I fear that a sufficient number of efficient teachers will not at first be forthcoming, it will be necessary in not a few instances, for the present at any rate, to arrange that the managers of schools may be in a position to recruit from England. I recognise however that the necessity for this importation is not a healthy sign; for, though the occasional introduction of new blood from England will doubtless be always desirable, the bulk of the schools ought obviously be to be able to recruit the majority of their teachers in India. The Training College at Kurseong will supply us with the necessary number of female teachers; while, as regards the training of male teachers we must look to the establishment of the proposed Training College at Allahabad. We have ascertained by experiment that for the present at any rate there is no hope of such a college being successful if confined to this Province only.

192. On the whole therefore we may fairly say that, dark as the past history of European Education in Bengal has been, we are beginning to leave that past behind. The corner has been turned and we may hope that a new era has begun.

CHAPTER X.

MUHAMMADAN EDUCATION.

General Remarks.

193. Owing to the Partition the proportion which the Muhammadan population bears to the general population has been considerably curtailed. The Muhammadan population of the Province is at present 9,034,949 and represents only 17·2 per cent. of the general population.

The Muhammadan population.

194. In the case of the general population 103 per mille of males and 5 per mille of females are literate. In the case of the Muhammadans the proportions are only 81 and 3 respectively. Present state of Muhammadan literacy.

195. As stated above, the Muhammadan population is 17·2 *per cent.* of the general population. On the other hand the percentage of Muhammadan pupils to pupils of all creeds is only 13·9, or if the figures returned by private institutions are, for the reasons given in Chapter XII, excluded as unreliable, the percentage is exactly 13. The percentage of Muhammadan pupils under instruction in public institutions in the year under review to Muhammadan children of a school-going age was 11·2; while the corresponding percentage for the general population was 14·8. It is however when we come to analyse the figures as regards the higher stages of instruction that the backwardness of the Muhammadans comes out more clearly. Thus, though the percentage of Muhammadans in primary schools is 13·7, and though this figure bears a fair proportion to the percentage of the Muhammadan population (17·2), in the higher stages of instruction the percentages fall off in a striking manner. Thus, in secondary schools the percentage is 8·7 only, in professional colleges, 4·3 only, and in arts colleges, 6·3 only. From all points of view therefore the Muhammadans have much ground to make up. Pupils under instruction.

Progress.

196. The total number of Muhammadans attending all classes of educational institutions increased from 166,781 in the year 1904-1905 to 171,905 in the year under review, or by 3·0 *per cent.*, as against an increase of 2·2 *per cent.* in the total number of pupils of all religions. On account however of the unreliability of the statistics returned by private institutions it is safer to make the comparison by reference only to pupils attending public institutions. In that case the increase in respect of Muhammadan pupils is 2·45 *per cent.*, as against an increase of 2·16 *per cent.* in respect of the total number of pupils of all religions. The result is satisfactory so far as it goes. In the Government Resolutions on the Director's reports for the years 1902-1903 and 1903-1904 the hope was expressed that, in view of the increase in those years of 5·8 and 11·7 *per cent.* respectively in the number of Muhammadan pupils under instruction, a real and lasting awakening had occurred on the part of the Muhammadan community to the advantages of education. In the year 1904-1905 however the total number of Muhammadans attending educational institutions declined by 3·1 *per cent.*, as against a decrease of 1·5 *per cent.* in the total number of pupils of all religions. It is not wise therefore to expect too much: on the whole there is a steady, though slow, improvement, and it is possible to hope that it may be maintained.

The Calcutta, Hooghly and Murshidabad Madrassahs.

197. A proposal is under consideration for the establishment of a Title Examination for Madrassahs on the lines of the Sanskrit Title Examination referred to in the chapter on University and Collegiate Education. A scheme to this effect was recently submitted by Dr. Ross, late Principal of the Calcutta Madrassah, and is now under consideration. The Sanskrit Title Examination has been so eminently successful in stimulating Sanskrit learning that it is not too much to hope that considerable enthusiasm will be evoked in regard to Muhammadan lore, if the examination referred to is established. I have already mentioned, in the chapter on "Education of Special Classes," that His Highness the Nawab of Murshidabad has submitted proposals for the amalgamation of the Murshidabad Madrassah with the local Government High school.

Indigenous Schools.

198. A scheme which affords much cause for hope in connection with Muhammadan education is one which was elaborated in the year 1903-1904 by a conference over which Dr. Ross presided, for developing the indigenous Muhammadan primary schools which exist throughout this Province. This scheme was sanctioned in the year referred to, and was partially brought into force in the year under review. It is only in the current year however that it has been found possible to provide the necessary funds

for giving effect to the complete project, the recurring charges of which amount to Rs. 18,542. I trust that even this will prove to be only the beginning of a wider scheme for bringing these schools under Government recognition. It is certain that that recognition will increase the number of pupils, and that the financial aid afforded will give stability to a deserving class of institutions.

Results of Examinations.

199. Muhammadan candidates did considerably better in the B. A. and F. A. examinations than in the previous year, notwithstanding the fact that in that year the results of the B. A. examination were exceptionally good. In the M. A. examination however and in all other examinations the results were very disappointing.

CHAPTER XI.

EDUCATION OF SPECIAL CLASSES.

Education of Chiefs and Nobles.

Education of the sons of Chiefs and Zamindars.

200. The Nawab of Murshidabad's Madrassah is intended for the education of the descendants and relations of the Nawab Bahadur of Murshidabad. As such, it has been a failure. Mixing only with their equals and removed from outside influences, these lads have no incentive to improvement. So convinced of this is His Highness that he has agreed to a proposal that the Madrassah should be amalgamated with the local Government High School. He hopes that by mixing with other boys in the High School the Nizamats boys will be stimulated to make better use of their time at school. The Nawab Bahadur has expressed a wish that any money saved by the amalgamation may be devoted to the furtherance of the proposed Ranchi Arts College Scheme. In Orissa the sons of Chiefs are educated chiefly at the Ravenshaw Collegiate School; while in the Chota Nagpur Division they are mostly sent to the Government High Schools.

Aboriginal Races and Tribes.

Number receiving education.

201. It was stated in the Fourth Quinquennial Review that out of the 6½ million aborigines found in the area dealt with in that review, 2¼ million belonged to Bengal. This figure is scarcely affected by the Partition. The homes of these people are chiefly to be found in the Chota Nagpur, Bhagalpur and Orissa Divisions, the Orissa Tributary Mahals, and the Birbhum and Bankura districts of the Burdwan Division. The aboriginal population of a school-going age, at the usual calculation of 15 per cent., comes to 387,500; and of this number 43,320 (9,342 Christians and 33,978 non-Christians), or 12 per cent. only, are receiving instruction. The increase in the number of pupils during the year under review was 2,021. This is satisfactory, but there is ample room for improvement. Government is much indebted to the various Missionary agencies which have done so much for the education of these people. There is however a wide field which those agencies cannot cover and which will have to be explored by the Education Department as funds become available.

Examination results.

202. As observed in the Fourth Quinquennial Report, Christian aboriginals secure better results in the examinations than non-Christian aboriginals. The examination results for the year 1905-1906 are so striking in this respect that I quote them below:—

Caste and creed of the pupils.	Total number of pupils attending educational institutions.	Standard VI or Middle Standard.				Standard IV or Upper Primary Standard.				Standard II or Lower Primary Standard.			
		Number passed.		Number gained scholarships.		Number passed.		Number gained scholarships.		Number passed.		Number gained scholarships.	
		Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.	Boys.	Girls.
Christian Aborigines	9,342	81	6	3	1	163	18	8	2	328	66	8	3
Non-Christian Aborigines	33,978	69	...	2	...	166	...	1	...	766	3	88	...

Indigent Classes.

203. The number of pupils of these classes (both Hindu and Muhammadan) increased from 65,564 in the year 1904-1905 to 66,011 in the year under review, a result which is satisfactory so far as it goes. Indigent Muhammadans require particular care. Of the Hindu indigent classes the Domes, Chandals, Bagdis, Muchis and Haris deserve special attention. Of these five castes alone there are 2,485,211 in this Province; the Bagdis numbering 1,012,600, the Chandals 539,864, the Domes 323,956, the Muchis 357,919, and the Haris 250,872. At the usual calculation of 15 *per cent.*, the population of a school-going age of these five castes comes to 372,781. Here too therefore there is a wide field for improvement as funds become available.

Other Backward Races.

204. These races are shown in the returns as the Tharus, Lepchas, Oraons (i.e., those members of the race that are Hindus) and Paharyas. The population of these tribes is 110,282, and the number of these people of a school-going age, at the usual calculation of 15 *per cent.*, is 16,542. Of this number 237, or 1·4 *per cent.* only, are receiving instruction. There is therefore ample scope for improvement in this direction also; and one of the first duties to be assigned to the inspecting staff, when it is strengthened, will be that of making a careful survey of the educational needs of the aboriginal races and tribes, indigent classes and backward races referred to in this and the last two paragraphs.

The Reformatory Schools at Alipore and Hazaribagh.

205. Inasmuch as a separate report has been submitted to Government in regard to these schools, it is unnecessary to give any detailed account of them in this report. The most satisfactory feature of the year's working was the marked improvement in respect of discipline and conduct. There is no doubt that this result is due to the policy laid down by Government that the boys are to be treated as if they were at school and not as if they were in jail. In pursuance of this humane and civilising policy, many important reforms are now in process of development. The chief of these are:—

- (1) the project for the removal of the Alipore Reformatory School from its present site near the Alipore Jail to a site in the suburbs, where there will be no jail associations and where there will be plenty of room for play-grounds;
- (2) the development of the industrial training given at the schools—and especially at the Alipore School—on more advanced and scientific lines;
- (3) an improved and more conciliatory system of watch over discharged boys; and
- (4) last, but certainly not least, a proposal to replace, as far as possible, the present illiterate guards by resident teachers qualified to influence the lives of the boys for good.

Miscellaneous Schools.

206. While deaf-mutes receive a certain amount of attention from Government, next to nothing is done for the blind. The Calcutta Deaf and Dumb School provides for 39 inmates, and a large share of the expenditure incurred is met by Government. On the other hand, the blind are much neglected. The Aided Anglican Mission School for the blind at Ranchi provides for some 19 pupils; but Calcutta, which might reasonably be expected to take the lead in such a matter, has only two small aided schools, viz., the London Mission Society's school,—called "St. Anthony's School,"—with about 100 pupils, and the Elliott Road "Industrial Home for Blind Children" with about 19 pupils. There is certainly an opening here for beneficence, and it is to be hoped that the opportunity may not be neglected.

CHAPTER XII.

PRIVATE INSTITUTIONS.

Meaning of the term.

207. As stated in the Fourth Quinquennial Review the term "Private Institutions" includes "all schools which have not accepted Departmental or University standards, and do not submit to any public test." Care must be taken not to confuse these institutions with the schools "under private management," whether aided or unaided, which are recognized by the Department and which form the bulk of the public institutions shown in the statistical returns. These institutions are divided in the statistical returns attached to this report thus:—

- (1) Advanced Institutions; teaching (a) Arabic, (b) Sanskrit, and (c) other Oriental languages.
- (2) Elementary Institutions; including (a) Koran Schools, and (b) schools teaching a vernacular only or mainly.
- (3) Other schools not conforming to departmental standards.

Under the head of advanced institutions teaching Sanskrit are included only those Sanskrit "tols" which do not conform to departmental standards. Those which do so conform are returned under the head of "School Education—Special—Miscellaneous," and are discussed in the chapter on collegiate education.

Statistics

208. The statistics furnished in regard to these institutions are necessarily unreliable. The Education Department has no control over the institutions in question, and there is no means of checking the figures returned by them. The justification for including such figures in the returns lies in the fact that it is very important to keep some account of these institutions, because they are for the most part schools in the making which may sooner or later be expected to improve their methods of teaching. As shown in the chapter on Muhammadan Education, many of the indigenous Muhammadan schools, called "*maktabs*," will henceforth be brought under the grant-in-aid system. At present, however, owing to the inadequacy of the inspecting staff, it is impossible for the Department to influence the bulk of the private institutions to any great extent. When the inspecting staff is increased, it will be feasible to do much in this direction; and one of the first duties then to be assigned to the local educational officers will be the preparation of an accurate survey of these schools. There are no great variations to report in regard to the number of schools or pupils in respect of the different classes of private institutions. Schools are reported to have increased from 5,141 to 5,215 and pupils from 54,841 to 57,021.

CHAPTER XIII.

PHYSICAL AND MORAL TRAINING.

Hostels and Messes.

Calcutta Mess Scheme for College Students.

209. As stated in the Fourth Quinquennial Review, hostels may be placed high in the list of influences on which reliance can be placed in moulding the character of students, because the existence of a well-arranged boarding-house affects fundamentally the character of the discipline and training afforded by a college or school and gives greater scope than anything else for the operation of other educational influences. I am glad to be able to say that the scheme inaugurated a few years ago for the improvement of the residence of college students in Calcutta is advancing. As stated in last year's report, Government has taken upon itself the responsibility of finding mess accommodation for all college students in Calcutta, who are not certified by the Principals of their colleges to be living either with their parents or recognised guardians. According to this scheme each college has its own mess or messes; that is to say, students from different colleges are not allowed to congregate together where they please, but are told off to messes which are under the control of the Principals of their

colleges. On the other hand, the Principals of colleges undertake to recover, as far as possible, from the students in the shape of rent the expenditure incurred by Government. A certain amount of loss necessarily accrues to Government in the carrying out of this scheme, owing to various causes, such as the estimated accommodation taken on lease being more than what is actually found to be required, unexpected loss of students, &c. During the year under review the loss incurred by Government amounted to Rs. 6,423.

210. Towards the close of the year under review Government intimated to the University its consent to continue the scheme above referred to for four years, that is to say, until such time as the University should be able to take over from Government the control of a matter which primarily concerns that authority rather than Government. At a conference of Principals of colleges held by me in March last it was held that if the scheme was to be a success, the appointment of Superintendents to control the messes was essential. Arrangements have been made accordingly during the current year, the Superintendents having been appointed by the Principals of the colleges concerned; and Government has been asked to contribute an average sum of Rs. 20 a month in each case towards the pay of these officers. The officers selected as Superintendents are professors of colleges, teachers, graduates, or other qualified persons duly approved by the Principals.

211. The scheme is still in an experimental stage, and it would be rash to pronounce upon it. I hope however that it will develop into an orderly scheme which will be of much benefit to the students. Under the new University regulations residence either in hostels or messes and the appointment of resident superintendents at hostels and messes are compulsory. A Students' Residence Committee also is to be appointed, and Government may reasonably expect to receive valuable advice from this body as to the lines on which future developments should proceed. Whatever it may be possible to do in the immediate future, there can be very little doubt that the creation of collegiate hostels is the goal towards which progress points. I trust that a fair share of the money which Government is allotting to the University for the improvement of colleges may be spent in this way.

212. At the instance of Government a scheme on lines similar to those followed in Calcutta has during the current year been initiated at all the important colleges in the mufassal. For this purpose Mr. Tipping, the officer who inaugurated the Calcutta Mess Scheme, was placed on special duty for three months early in the year. The colleges which have been dealt with are the Patna College, the Burdwan College, the Bankura Wesleyan Mission College, the Berhampore College, the Krishnagar College, the Midnapore College and the Ravenshaw College, Cuttack. The Hooghly College is already provided with hostel accommodation. This scheme is of course in its initial stage; but I am satisfied from inspections made by myself that it is a hopeful project.

213. I hope that during the current year the Department will be in a position to take up the question of developing a proper system of residence for school-boys. Hitherto the working out of a scheme of residence for college students—a matter which primarily concerns the University—has devolved upon the Department owing to the inability of the University to deal with the matter. It will be a great relief when that authority is able to undertake the control of this subject and leave the Department to deal with that of residence for school boys. This will be a somewhat easier task, because in the case of such students a larger proportion come from the immediate neighbourhood of the schools and live with their parents. In some places what is chiefly required in regard to schools is the provision of hostels so as to enable boys from the interior of the districts to take advantage of higher education. This they are at present unable to do owing to the absence of the necessary facilities. It is for this purpose that an amendment of the Local Self-Government Act is in contemplation so as to permit District Boards to contribute towards the construction of hostels and the payment of hostel Superintendents. Lastly, I may mention that the new University regulations make it incumbent on the authorities of affiliated High Schools to see that all pupils, who are not resident with either parents or guardians,

Mufassal Mess
Scheme for
College Students.

Hostels for High
Schools.

live either in a hostel or mess under the control of some person responsible to the Head Master of the School for the discipline and well-being of such pupils. I am instructing Inspectors of Schools to draw the attention of Managers of aided High Schools to the regulations and to inform them that the question of hostel and mess accommodation will be taken into consideration when applications for grants-in-aid are received.

General remarks
as regards hostels
for colleges and
schools.

214. Some of the messes at which students reside in the mufassal, in places where it has not been possible as yet to organise special arrangements, have been visited by me during the course of my tours, and I have no hesitation in saying that immediate reform is called for. It is scarcely conceivable that parents can know of the squalid dens in which their sons reside; and, whether they know or not, a very large measure of responsibility in this matter rests on the authorities conducting schools. The fact cannot be blinked that infinitely more harm may be done to boys in these so-called messes, than good can be done to them in the colleges or schools.

Statistics as
regards
boarding-houses,
hostels and
messes for
European and
Indian Students.

215. The number of hostels increased during the year under review from 846 to 410, and the number of inmates from 12,416 to 14,656. The decline in expenditure from Rs. 9,40,100 to Rs. 8,20,872, which occurred entirely under the head of boarding charges in European schools, is due to causes explained in the chapter on European Education.

Statistics as
regards Hostels
and Messes for
Indian Students.

216. The number of hostels increased from 810 to 877, the number of inmates from 9,478 to 11,424 and the expenditure from Rs. 9,24,457 to Rs. 8,77,403. The bulk of this money, viz., Rs. 9,36,192, came from private sources, and Rs. 41,281 only from Provincial Revenues and District and Municipal Funds. This is satisfactory in view of the orders of the Government of India that hostels should, as far as possible, be self-supporting. It is also satisfactory to note that receipts from private sources increased by Rs. 87,728. The large increase in the number of hostels, inmates of hostels and expenditure on account of hostels is due (1) to the introduction of the Calcutta Mess Scheme for college students as described above, and (2) to the general impetus which has been given in recent years to the hostel movement.

Social Intercourse between Teachers and Students in Common-rooms and on Play-grounds.

217. Perhaps in no department can the good influence of professors and teachers be exercised on students more effectively than in common rooms and on play-grounds. Such influences can however only be brought to bear fully and effectively when social life has been evolved by teachers and students living near each other under the conditions of a residential institution. It is gratifying however to find that even in present circumstances the heads of not a few colleges and schools have been successful in promoting social relations between the students and the staff. This has been notably the case, as regards Government colleges, at the Patna, Madrasa and Sanskrit colleges, and the Bihar School of Engineering.

Physical Exercise and Games.

Physical Direc-
tors.

218. Two important proposals have been under consideration during the year, the one for the appointment of a Physical Director for Calcutta and the other for a similar officer for the Mufassal. The intention is that the officers to be appointed should be men of superior qualifications who have studied physical exercise from a scientific point of view. Such appointments are not uncommon in America, and the proposal as regards the appointment of such an officer for Calcutta came from an American source. I think that these appointments are very necessary, and, as soon as funds allow, I shall make a representation on the subject to Government. We are groping very much in the dark in the matter of calisthenics. The *Desi Kasrat*, or Indian system of gymnastics adopted from the Central Provinces, is in force in this Province. It is quite impossible, however, without expert advice, to say how far this system is a sound one. Many applications come up from Inspectors of Schools asking for large expenditure as regards the training of gymnastic teachers. I am declining to entertain these applications till we have some authority to whom we can look for advice as to how our money can best be spent.

219. There is nothing of special interest to be said this year as regards Games and drill. games and drill at colleges and schools. Physical exercise of some kind is compulsory, but in some cases I have found Head Masters of schools negligent of their duties in this respect. In Orissa the Inspector reports that the organisation of games is said to be hampered by the want of suitable playgrounds. A special report will be called for from him on this subject.

Moral Training.

220. I have already dealt with the training of teachers in Chapter VI. As stated in the Fourth Quinquennial Review, the maintenance of a high standard of discipline depends chiefly on this training and on the character of the persons who enter the teaching profession. The formation of character is of course one of the main aims of education, and this is being very strongly emphasised in the revised syllabus of studies which is now under issue in respect of lower primary schools. Similar stress will be laid on the subject when the revision of the syllabus for the higher standards is undertaken. The revised syllabus above referred to begins with an Introduction which illustrates what I have said above, and I cannot do better than cite the two concluding paragraphs, which run thus:—

"Above all school life must prevent children from forming bad habits, and this it can only do by training them in good habits and, if possible, in good conduct, by which is meant something wider than the mere cheerful observance of school regulations. In the matter of this moral training the most important factor will be the habitual conduct of the teacher in the school. If he is thorough, patient, kind but firm, and scrupulously fair, these traits will evoke similar traits in his pupils, and will give point and force to any moral instruction he may attempt. A teacher who is obviously slipshod and lazy, discouraging to children about the value of industry and thoroughness, is an absurdity which cannot but prove morally disintegrating to a child. Stories in readers designed to inculcate morals tend, if silly, as they frequently are, to make moral instruction ridiculous. Even if they are good, they are of little value unless they are backed by personal example.

"The every-day incidents of school life will enable the teachers to impress upon the children the importance of punctuality, of good manners, of cleanliness and neatness, of cheerful obedience to duty, of consideration and respect for others, and of honour and truthfulness in word and act. Children will notice such details in the conduct of a teacher as punctuality, order, neatness and gentleness, and they will imitate what they see and hear. They are quick to observe; and if the teacher's conduct is in these respects defective, his example must almost certainly have a disastrous effect on the habits of the pupils. Thus, the punctual and methodical performance of duties, even in matters of trivial routine, will impress upon the children better than any lesson the importance of orderliness; and the good habits of the teacher will be even more powerful than his express requirements in shaping his pupils for the proper conduct of life."

In the course of this chapter the influence of the teachers employed, the influence resulting from the nature of the teaching imparted, and the influence of hostel life have all been mentioned. As, however, the Government of India pointed out in a letter issued during the year under review in reply to a memorial from certain residents of this Province, the greatest of all influences is that of home life, that is to say, of parents, relations and guardians. As that Government observed, that is an agency entirely independent of Government, and the State can neither call it into existence nor direct its operation; and it rests with the Indian people themselves to see that a proper moral atmosphere prevails in the Indian home.

Discipline at Colleges and Schools during the year under review.

221. Two grave breaches of discipline occurred at the Presidency College Breaches of soon after effect was given to the Partition. Discipline at the Sibpur Civil discipline. Engineering College also suffered at the same time. It is reported that when the students joined the College in November 1905 they were suffering from the effects of political agitation, that a spirit of turbulence manifested itself, and that two of the ringleaders had to be expelled before order could be restored. The grant-in-aid of the Garbhawanipur High English School in the district of Howrah has been withdrawn on account of a bad case of boycotting by the students of that school. At the Hooghly College two students were punished for unruly behaviour in a public thoroughfare. At the Krishnagar College discipline has not been satisfactory. The district of Khulna also came unfavourably to notice on account of

disturbances caused by students; and the Khulna Zillah School and the Daulatpur High School were deprived of the privilege of competing for Government scholarships for a year.

Control of school
masters.

222. The question of the control of masters of schools over the conduct of boys beyond the school premises has recently formed the subject of discussion in Bombay, and an important Press Note has recently been issued by the Government of that Presidency, an extract from which, as reported in the newspapers, I quote below. It is a ruling of much importance.

"It is quite a mistake to suppose that the Head Master's authority over day boys does not extend beyond the school premises. In certain cases it is obvious that he is bound to take notice of misconduct, and in other matters though the necessity for his interference may not be so obvious, it is still unquestionable that an order given to a pupil must be obeyed. If any parent or guardian is dissatisfied with any order of the kind, it is always open to him to apply to higher authority, in which case he may be quite sure of a careful enquiry into the circumstances. But he should never counsel disobedience, which can only injure the boy whose welfare he desires to promote. Such disobedience would not be tolerated in any well regulated school in England, and cannot, in justice to the pupils, be permitted in this country. The importance of discipline, whether in the family or in the school, is a matter which can hardly be disputed, and the small minority who take a different view cannot reasonably expect others to agree with them. When disobedience occurs, it must be punished by the ordinary school methods."

CHAPTER XIV.

EDUCATIONAL CONFERENCES.

Revision of the
scheme of
vernacular
education.

223. THE most important conferences held during the year under review were those in connection with the revision of the vernacular scheme of education which was brought into force in the year 1901, in so far as it affects lower primary, and especially rural lower primary, schools. This subject had been considered in the year 1904 by a conference specially convened by the Lieutenant-Governor. The results of that conference formed the subject of the Resolution of Government No. 658, dated the 7th February 1905, in which the public was invited to submit criticisms in regard to the scheme proposed. The replies received were then considered by a further conference, appointed by His Honour, which submitted a report to Government on the 3rd August 1905. The working out of the details of the scheme, as provisionally approved by the conference just referred to, was then referred to a special committee, which brought its labours to a conclusion at the close of the year under review. The views of the special committee were submitted by me to Government with my letter No. 86T., dated the 14th May 1906, and the orders of Government generally sanctioning the proposals made by the committee were received in Government letter No. 1800, dated the 5th July 1906. Active steps are now being taken to carry out the necessary reforms. A full account of the changes to be initiated has already been given in the chapter on Primary Education.

Conference at
Darjeeling.

224. An important conference was held at Darjeeling shortly after the close of the year in connection with a proposal to extend primary education amongst the hill population. The results of this conference have been mentioned in the chapter on Primary Education.

Annual
educational
conferences.

225. Numerous useful conferences were held during the year by educational officers on various matters demanding concerted action. It is unnecessary to refer to the subjects discussed at these conferences; but I am glad to notice that officers of all grades are fully alive to the advantages of meeting together to deliberate over educational questions in which special difficulties are encountered.

Delegation of
powers to
Inspectors of
Schools.

226. I hope during the course of the current year to be able to hold a conference of Inspectors of Schools with the object of deciding in what directions a delegation of the powers of the Director is at present feasible. The stress of work has been so great ever since I joined the office of Director in January 1906 that I have not as yet been able to convene a meeting. Probably it will not at present be possible to effect any

large delegation of powers, because of the well-known inadequacy of the Inspectorate. A beginning should however be made as soon as practicable; and, when the Inspectorate is strengthened, a further devolution of powers will be considered.

CHAPTER XV.

TEXT-BOOK COMMITTEES AND THE CALCUTTA SCHOOL BOOK SOCIETY.

The Central Text-Book Committee.

227. THE working of the Central Text-Book Committee has recently been adversely criticised, the main objections raised being

- (1) that the preliminary examination of text-books which is required under standing orders before their submission to the Text-Book Committee should not, as heretofore, be conducted in a confidential manner, but that the names of the persons consulted should be made public,
- (2) that members of the Text-Book Committee should be remunerated for their work, and
- (3) that the exclusion from the Text-Book Committee of persons who are authors or who have any interest in the production of text-books has the effect of depriving the Committee of the services of the very persons whose services would be of real use.

These questions are now under my consideration in connection with a proposal which has been made by certain publishing firms in Calcutta that Government support should be withdrawn from the School Book Society on the ground, that the operations of the Society interfere with private trade. The functions of the School Book Society and the Text-Book Committee are interconnected, and it will be convenient to deal with all the questions raised together.

228. Meantime, I wish merely to say on the present occasion that I think that the functions of the Text-Book Committee have been somewhat misunderstood. These functions are strictly limited to *advising* Government as to which of certain books presented to them for examination are fit to be used in schools. That advice in practice merely amounts, as far as I can gather, to recommendations being made in favour of all books with any pretence to merit or suitability. The Committee has no power, even if it considers that the books submitted to it for examination are not as good as they should be, to take steps to secure the production of suitable books. In short, the production of text-books has been left to unguided private speculation. As shown however in the chapters on Secondary and Primary Education, this system has signally failed in respect of the production of suitable text-books for certain classes of schools, and Government has decided to bring out certain books itself, by the exercise of a power which is specially reserved to it under the rules. This does not of course mean that Government intends to monopolise the production of text-books. It will merely give the lead by showing the kind of books which are required; and, if private enterprise can produce equally good or better books, these will be accepted.

The Calcutta School Book Society.

229. The sales of the Calcutta School Book Society amounted during the year under review to Rs. 1,33,777, as against Rs. 1,66,338 in the year 1904-1905.

A. EARLE,

Director of Public Instruction, Bengal.

EDUCATION—GENERAL TABLE I.
Abstract Statement of Colleges, Schools, and Scholars in the Lower Provinces of Bengal for the Official year 1905-1906.
(For details, see General Table III.)

AREA AND POPULATION.			PUBLIC INSTITUTIONS.										PRIVATE INSTITUTIONS.			Grand Total.	Percentage of—
Total area in square miles.	Number of towns and villages.	Population.	Institutions and scholars.	Collegiate education.		School education, general.		School education, special.		Total.	Advanced.	Elementary.	Total.				
				Arts colleges.	Professional colleges.	Secondary schools.	Primary schools.	Training schools.	All other special schools.								
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16		
124,425, including 1,437 square miles of Orissa Tributary States and 8,764 square miles of Sambalpur, and including the Rajshahi Division minus the district of Dacca, the districts of Malda and the Dacca and Chittagong Divisions.	Towns, including municipalities 141 Villages ... 150,605 Total 180,145	Males ... 26,114,820 Females ... 24,545,049 Total ... 50,659,869 Number of population of school-going age— Males ... 2,918,723 Females ... 2,451,767 Total ... 5,370,490	Institutions.	30	15	1,471	32,673	116	885	34,533	1,009	2,601	4,170	41,005	{ Institutions to number of towns and villages. }		
				Scholars.	2	...	63	2,821	20	3	2,844	...	45	45		2,903	{ Male scholars to male po- pulation of school-going age. Female schol- ars to female population of school-going age. }
			Total		34	15	1,534	35,494	136	887	36,751	1,009	2,646	5,316	43,896	29-20	
						Males	3,000	2,165	331,005	800,000	1,794	12,513	1,861,313	17,191	27,301	54,493	1,115,970	35-67
			Females	20	17	5,000	107,821	886	267	112,739	109	2,400	2,509	115,300	3-94		
			Total	4,075	2,182	1,534,646	907,821	2,673	12,819	1,176,357	17,351	29,701	57,911	1,233,278	15-19		

Institutions to number of towns and villages. { 27-28 } 300

Male scholars to male population of school-going age. { 25-27 } 25-27

Female scholars to female population of school-going age. { 25-27 } 25-27

EDUCATION—

Abstract Return of Expenditure on Public Instruction in the Lower

(For details, see

TOTAL DIRECT EXPENDITURE ON PUBLIC INSTRUCTION.							
1	Collegiate education.		School education, general.		School education, special.		Total.
	Arts colleges.	Professional colleges.	Secondary schools.	Primary schools.	Training schools.	All other special schools.	
2	3	4	5	6	7	8	
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1.—Institutions { For males ...	7,51,718	4,69,128	26,81,856	24,51,018	1,34,180	4,85,478	69,78,878
„ females ...	13,977	...	4,05,298	3,27,494	70,258	2,691	8,20,818
Total ...	7,65,695	4,69,128	30,87,149	27,78,507	2,05,038	4,88,169	77,99,696
2.—(a) Percentage of provincial expenditure, included in columns 2—17, to total provincial expenditure on public instruction	8.1	10.8	14.9	7.5	4.4	8.4	54.1
(b) Percentage of district fund expenditure, included in columns 2—17, to total district fund expenditure on public instruction	1	...	13.1	58.8	1	8	72.9
(c) Percentage of municipal fund expenditure, included in columns 2—17, to total municipal fund expenditure on public instruction	1.1	...	16.9	84.9	1	3.6	86.6
(d) Percentage of total expenditure, included in columns 2—17, to total expenditure on public instruction	6.9	4.8	28.0	25.2	1.8	4.5	70.7
3.—AVERAGE ANNUAL COST OF EDUCATING EACH PUPIL IN—	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
Government institutions. { Cost to Provincial revenues ...	178 10 8	376 4 8	20 7 0	6 0 2	78 11 9	123 13 10	57 11 11
„ { Cost to district and municipal funds ...	...	...	0 0 5	0 1 0	0 10 2	...	0 1 2
Total cost from all sources ...	280 1 11	447 4 11	42 7 5	5 8 1	82 6 6	143 9 8	81 7 6
Municipal and District Board institutions. { Cost to Provincial revenues ...	10 2 10	...	0 3 3	0 0 2	...	...	...
„ { Cost to district and municipal funds ...	24 8 8	...	5 0 1	3 2 3	...	41 12 0	4 7 3
Total cost from all sources ...	108 4 0	65 11 0	11 5 3	3 7 1	...	54 11 0	8 11 1
Aided institutions. { Cost to Provincial revenues ...	22 15 2	...	3 5 5	0 4 8	29 6 2	5 7 10	0 10 10
„ { Cost to district and municipal funds ...	...	...	1 6 8	0 14 9	0 3 0	1 8 0	0 15 7
Total cost from all sources ...	181 7 5	...	10 11 2	3 1 6	76 2 3	20 12 10	5 0 7
Unaided institutions—Total cost from all sources.	64 5 1	25 14 10	17 12 10	2 1 2	42 4 0	16 10 8	7 14 6
Total cost to Provincial revenues ...	4 14 0	167 14 10	8 4 10	0 4 4	57 1 7	23 10 11	1 10 7
„ municipal and district funds.	0 5 10	...	1 2 0	0 13 1	0 7 1	1 0 11	0 13 8
Total cost from all sources ...	185 14 1	214 8 1	20 2 6	2 15 9	79 1 8	40 7 0	7 0

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 26, 1906. 1959

GENERAL TABLE II.

Provinces of Bengal for the Official year 1905-1906.

General Table IV.)

TOTAL INDIRECT EXPENDITURE ON PUBLIC INSTRUCTION.								Total expenditure on public instruction.	REMARKS.
University.	Director.	Inspection.	Scholarship.	Buildings.	Special grants for furniture and apparatus.	Miscellaneous.	Total.		
9	10	11	12	13	14	15	16	17	18
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
1,60,944	92,866	5,17,294	2,10,960*	11,52,803	1,09,155	9,88,141	32,31,663	1,10,25,349	
1,60,944	92,866	5,17,294	2,10,960*	11,52,803	1,09,155	9,88,141	32,31,663	1,10,25,349	
...	2.7	8.6	4.2	25.7	1.4	3.3	45.9	100.0	
...	...	18.2	8.1	.8	.7	4.6	27.1	100.0	
...	...	3.6	.8	1.8	1.2	6.0	13.4	100.0	
1.5	.8	4.7	2.0	10.4	1.0	3.9	29.3	100.0	

* Excluding Rs. 9,941, Assam Government scholarships, and Rs. 833, Central Provinces Government scholarships

EDUCATION—C

Return of Colleges, Schools and Scholars in the

CLASS OF INSTITUTION.		PUBLIC INSTITUTIONS												Aided by Govt. or Municipality.
		UNDER PUBLIC MANAGEMENT.												
		Managed by Government.				Managed by District or Municipal Board.				Maintained by Native States.				
		Number of institutions.	Number of scholars on the rolls on 31st March.	Average number on the rolls monthly during the year.	Average daily attendance.	Number of institutions.	Number of scholars on the rolls on 31st March.	Average number on the rolls monthly during the year.	Average daily attendance.	Number of institutions.	Number of scholars on the rolls on 31st March.	Average number on the rolls monthly during the year.	Average daily attendance.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	
COLLEGIATE EDUCATION.														
ARTS COLLEGES.														
English	2	1,234	1,207	1,216	2	79	84	84	...	...	...	...	...	0
COLLEGES FOR PROFESSIONAL TRAINING.														
Law	4	63	61	30	1	27	20	22	...	...	...	...	...	...
Medicine	1	423	540	530	...	...	...	...	...	...	...	...	...	...
Engineering	1	331	242	281	...	...	...	...	...	...	...	...	...	...
Agriculture	1	23	24	18	...	...	...	...	...	...	...	...	...	...
Total of Colleges	15	2,144	2,573	2,092	3	106	113	86	...	...	...	...	...	6
SECONDARY SCHOOLS.														
For Boys—														
High schools ... English	28	9,308	9,183	7,873	8	1,279	1,209	972	2	340	314	247	166	...
Middle " ... English	4	474	401	302	20	2,220	2,180	1,678	18	1,813	1,838	919	478	...
Middle " ... Vernacular	17	1,194	1,077	813	104	6,526	6,184	4,842	3	176	156	102	263	...
Total for Boys' Schools	59	11,054	10,671	8,476	136	10,027	9,473	7,502	23	1,857	1,708	1,268	697	...
For Girls—														
High schools ... English	1	181	161	124	...	...	...	...	...	...	...	...	...	12
Middle " ... English	1	117	84	79	...	...	...	...	...	...	...	...	...	37
Middle " ... Vernacular .....	...	...	...	...	...	...	...	...	...	...	...	...	...	9
Total for Girls' Schools	2	298	245	213	...	...	...	...	...	...	...	...	...	58
GRAND TOTAL OF SECONDARY SCHOOLS FOR BOYS AND GIRLS	61	12,352	10,916	8,689	136	10,027	9,473	7,502	23	1,857	1,708	1,268	697	...
PRIMARY SCHOOLS.														
For boys ... { Upper Primary														
... { Lower	23	2,728	2,207	2,764	97	8,479	5,224	6,423	7	201	207	145	2,009	...
... { Lower	3	114	119	81	5	413	373	296	342	6,043	5,987	4,221	24,183	...
Total Primary Schools for Boys	102	4,048	4,006	2,843	102	8,888	2,602	6,749	349	6,264	5,674	4,416	26,767	...
For girls ... { Upper Primary														
... { Lower	6	435	416	330	...	...	...	...	...	...	...	...	...	126
... { Lower	1	18	16	14	...	...	...	...	12	219	207	155	2,220	...
Total Primary Schools for Girls	7	453	432	350	...	...	...	...	12	219	207	155	2,426	...
GRAND TOTAL OF PRIMARY SCHOOLS FOR BOYS AND GIRLS	109	4,501	4,438	3,193	102	8,888	2,602	6,749	361	6,483	5,881	4,571	29,193	...
SCHOOLS FOR SPECIAL INSTRUCTION.														
Training Schools—														
(a) For masters	111	1,600	1,444	1,136	...	...	...	...	...	...	...	...	...	6
(b) For mistresses	1	20	20	21	...	...	...	...	...	...	...	...	...	16
Schools of Art	1	248	201	191	...	...	...	...	...	...	...	...	...	...
Law schools	3	405	518	401	...	...	...	...	...	...	...	...	...	...
Medical schools	2	216	223	207	...	...	...	...	...	...	...	...	...	1
Engineering or Surveying schools	1	51	69	89	...	116	121	87	...	...	...	...	...	35
Industrial schools	1	66	82	71	...	...	...	...	...	...	...	...	...	3
Commercial schools	1(b)	...	...	...	...	...	...	...	...	...	...	...	...	3
Agricultural schools .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other schools { Madrasahs	2	560	568	296	...	...	...	...	...	...	...	...	...	...
... { Reformatory schools	2	245	243	332	...	...	...	...	...	...	...	...	...	...
... { Miscellaneous schools	1	68	68	41	...	...	...	...	...	...	...	...	...	...
Total	126	2,628	2,561	2,934	6	116	121	87	8	120	106	64	283	...
TOTAL SCHOOLS OF PUBLIC INSTRUCTION	211	21,679	21,288	16,911	247	19,127	18,209	14,421	392	6,600	7,006	5,908	31,479	...

PRIVATE INSTITUTIONS

1. ADVANCED, teaching—
 - (a) Arabic or Persian
 - (b) Sanskrit
 - (c) Any other Oriental Classic
2. ELEMENTARY, teaching a Vernacular only or mainly
3. ELEMENTARY, teaching the Koran
4. OTHER SCHOOLS not conforming to Departmental Standards

(a) Including Doreton College
(b) Attached to the Presidency College, and doing work

TABLE III.

Prices of Bengal for the official year 1905-1906.

[illegible]

Standard equal to intermediate or First Arts examination.

EDUCATION—GENERAL TABLE IIIA.

Number of Scholars on the 31st March 1906, in the Lower Provinces of Bengal, classified according to sex, race or creed, for 1905-1906.

						Euro- peans and Euro- peans.	Native Christ- ians.	HINDUS.		Muham- madans.	Bud- dhists.	Parsis.	Others.	TOTAL.
								Brah- mans.	Non- Brah- mans.					
COLLEGIATE EDUCATION.														
<i>Arts Colleges.</i>														
English	...	...	Male	...	...	26	77	1,283	1,281	261	6	2	4	2,863
	...	...	Female	...	...	3	3	1	12	...	...	...	...	19
<i>Colleges for Professional Training.</i>														
Law	...	...	Male	...	...	4	7	46	323	70	3	...	1	1,370
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Medicine	...	...	Male	...	...	65	8	20	246	15	1	...	...	400
	...	...	Female	...	...	12	4	...	...	...	...	...	1	17
Engineering	...	...	Male	...	...	47	3	106	186	9	...	1	...	381
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Agriculture	...	...	Male	...	...	1	...	3	10	...	...	...	...	22
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Total						160	105	2,519	4,549	435	9	4	6	7,636
SCHOOL EDUCATION—GENERAL.														
<i>Secondary Schools.</i>														
<i>For Boys—</i>														
High Schools	...	...	Male	...	...	2,000	1,431	21,300	46,989	7,073	26	54	140	32,000
	...	...	Female	...	...	...	...	5	2	...	...	...	...	7
Middle Schools—	...	...	Male	...	...	1,169	803	10,442	26,944	4,192	4	20	370	44,000
English	...	...	Female	...	...	33	20	81	87	3	...	...	...	203
Vernacular	...	...	Male	...	...	1	380	6,022	16,173	2,446	...	...	...	25,123
	...	...	Female	...	...	...	...	50	123	2	...	...	...	124
<i>For Girls—</i>														
High Schools	...	...	Male	...	...	150	16	11	7	...	...	4	19	200
	...	...	Female	...	...	733	208	123	161	3	1	13	15	1,000
Middle Schools—	...	...	Male	...	...	365	65	23	78	8	2	3	73	623
English	...	...	Female	...	...	1,787	633	180	501	11	1	25	113	3,101
Vernacular	...	...	Male	...	...	...	25	8	46	...	...	...	2	79
	...	...	Female	...	...	...	226	60	223	4	...	...	...	600
Total						5,706	4,023	42,177	91,466	12,736	104	120	1,313	160,000
<i>Primary Schools.</i>														
<i>For Boys</i>														
	...	...	Male	...	...	7,642	94,937	683,070	128,416	206	1	31,711	...	800,000
	...	...	Female	...	...	1,150	7,390	30,631	5,286	19	...	726	...	43,236
<i>For Girls</i>														
	...	...	Male	...	...	270	2,907	1,173	129	...	...	13	25	2,100
	...	...	Female	...	...	3,312	12,948	41,971	4,769	2	...	16	633	63,700
Total						1,368	12,423	115,532	200,350	136,571	314	33	22,909	905,000
SCHOOL EDUCATION—SPECIAL.														
Training Schools	...	...	Male	...	...	26	188	458	968	120	...	...	71	1,700
	...	...	Female	...	...	3	797	6	55	...	...	...	4	800
Schools of Art	...	...	Male	...	...	...	3	168	277	9	...	...	...	300
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Law Schools	...	...	Male	...	...	...	...	...	...	...	...	...	...	...
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Medical Schools	...	...	Male	...	...	4	9	310	366	119	1	3	...	1,013
	...	...	Female	...	...	2	15	64	136	24	...	...	...	207
Engineering and Surveying Schools.	...	...	Male	...	...	...	...	...	...	...	...	...	...	...
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Industrial Schools	...	...	Male	...	...	...	186	57	474	200	...	...	...	600
	...	...	Female	...	...	...	16	...	...	13	...	...	...	...
Commercial Schools	...	...	Male	...	...	24	3	87	120	19	...	...	...	200
	...	...	Female	...	...	16	...	...	...	...	...	...	...	...
Agricultural Schools	...	...	Male	...	...	...	...	...	...	...	...	...	...	...
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Other Schools	...	...	Male	...	...	...	...	...	...	...	...	...	...	...
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Reformatory Schools.	...	...	Male	...	...	6	8	9	300	110	...	...	...	400
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
Miscellaneous Schools.	...	...	Male	...	...	1	93	3,404	308	326	1	1	...	7,700
	...	...	Female	...	...	...	31	4	84	63	...	...	...	(a) 113
Total						84	1,383	7,662	2,684	2,300	4	3	116	12,100
Total of Scholars in Public Institutions						7,407	17,906	165,910	706,048	153,082	431	169	84,334	1,116,257
PRIVATE INSTITUTIONS.														
1. Advanced Teaching—														
(a) Arabic or Persian	...	...	Male	...	...	...	...	20	2,213	3,312	...	...	...	10,000
	...	...	Female	...	...	...	...	...	1	169	...	...	...	100
(b) Sanskrit	...	...	Male	...	...	...	...	6,403	115	...	...	...	...	9,000
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
(c) Any other Oriental Classics.	...	...	Male	...	...	...	...	...	...	...	...	...	...	...
	...	...	Female	...	...	...	...	...	...	...	...	...	...	...
2. Elementary Teaching—A Vernacular only or mainly—														
<i>For Boys</i>														
	...	...	Male	...	...	...	26	2,706	30,818	2,550	...	...	165	34,330
	...	...	Female	...	...	...	16	54	246	28	...	...	2	400
<i>For Girls</i>														
	...	...	Male	...	...	...	...	...	...	...	...	...	...	...
	...	...	Female	...	...	...	...	7	86	...	...	...	...	...

(a) Including 34 girls in two miscellaneous schools for girls in Calcutta.

GENERAL TABLE IIIA.—concluded.

Number of Scholars on the 31st March 1906, classified according to sex, race or creed, etc.—concluded.

										continued.									
										Euro- peans and Burn- sians.	Native Christ- ians.	HINDUS.		Muham- madans.	Bud- dhists.	Parsis.	Others.	TOTAL.	
												Brah- mans.	Non- Brah- mans.						
PRIVATE INSTITUTIONS—concl.																			
3. Elementary Teaching—The Koran only—																			
For Boys { Male ...																			

EDUCATION-

Return of Expenditure on Public Instruction in the Lower Provinces

OBJECTS & EXPENDITURE.	UNDER PUBLIC MANAGEMENT.																		
	Managed by Government.							Managed by District or Municipal Boards.							Maintained by				
	Provincial revenues.	District funds.	Municipal funds.	Fees, including fees paid from Mohan Fund.	Subscriptions.	Endowments and other sources.	Total.	Provincial revenues.	District funds.	Municipal funds.	Fees, including fees paid from Mohan Fund.	Subscriptions.	Endowments and other sources.	Total.	Native States' revenues.	Local Funds in Native States.	Municipal Funds raised in Native States.	Total.	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
DIRECT EXPENDITURE.																			
COLLEGIATE EDUCATION.																			
Arts Colleges.																			
English	2,48,614	...	...	1,40,111	...	2,609	3,01,834	885	900	1,161	4,888	175	5,734	13,718	...	...	...	...	...
Colleges for Professional Training.																			
Law	2,29,954	...	...	4,751	...	...	4,751	...	...	...	1,905	...	...	1,905	...	...	...	...	...
Medicine	1,29,249	...	...	22,305	...	6,282	1,57,856	...	...	...	...	...	...	...	...	...	...	...	...
Engineering	8,057	...	...	1,040	...	...	9,097	...	...	...	...	...	...	...	...	...	...	...	...
Agriculture ... ..	...	...	...	...	...	...	...	...	...	...	1,905	...	...	1,905	...	...	...	...	...
Total for professional Colleges	3,67,200	...	...	63,056	...	6,282	4,36,572	...	...	...	1,905	...	...	1,905	...	...	...	...	...
Total for Colleges	6,00,674	...	...	2,09,161	...	8,871	8,27,906	885	900	1,161	6,793	175	5,734	15,618	...	...	...	...	...
Secondary Schools.																			
For Boys—																			
High Schools ... English ...	1,51,063	...	...	2,13,758	4,130	3,829	3,78,655	1,600	250	...	23,220	...	...	27,270	7,172	...	...	...	...
Middle " ... Vernacular ...	7,405	...	...	1,940	308	33	10,108	64	36,233	830	12,331	3,244	21	55,903	14,297	...	...	...	...
Total for Secondary Schools for Boys	1,58,468	...	...	2,15,731	4,438	3,862	4,21,568	1,664	45,706	1,712	51,145	6,771	42	1,07,340	21,511	...	...	...	...
For Girls—																			
High Schools ... English ...	10,751	...	...	3,800	...	...	20,641	...	...	...	...	...	...	...	...	...	...	...	...
Middle " ... Vernacular ...	18,195	...	...	3,170	...	...	21,365	...	...	...	...	...	...	...	...	...	...	...	...
Total for Secondary Schools for Girls	28,946	...	...	7,000	...	...	42,006	...	...	...	...	...	...	...	...	...	...	...	...
Total Secondary Schools for Boys and Girls	2,23,109	...	...	2,31,791	4,438	3,862	4,63,572	1,664	45,706	1,712	51,145	6,771	42	1,07,340	22,511	...	...	...	...
Primary Schools.																			
For Boys—																			
Upper Primary	19,656	224	48	1,800	5	15	21,757	126	25,705	1,225	2,493	...	...	28,559	617	...	...	...	...
Lower "	409	12	...	75	...	...	594	...	...	...	...	...	...	1,129	5,964	...	...	...	...
Total for Primary Schools for Boys	20,165	236	48	1,874	5	15	22,353	126	25,705	1,225	2,493	...	...	29,688	6,581	...	...	...	...
For Girls—																			
Upper Primary	2,067	...	...	...	...	...	2,067	...	...	...	...	...	...	...	...	...	...	...	...
Lower "	12	...	...	...	...	...	12	...	...	...	...	...	...	...	...	...	...	...	...
Total for Primary Schools for Girls	2,079	...	...	...	...	...	2,079	...	...	...	...	...	...	...	...	...	...	...	...
Total Primary schools for Boys and Girls	22,244	236	48	1,884	5	15	24,432	126	25,705	1,225	2,493	...	...	29,688	6,581	...	...	...	...
SCHOOLS FOR SPECIAL INSTRUCTIONS.																			
Training Schools for—																			
(a) Masters	1,12,359	949	...	4,403	7	93	1,20,811	...	...	...	...	...	...	...	...	...	...	...	...
(b) Mistresses	1,850	...	...	...	...	...	1,850	...	...	...	...	...	...	...	...	...	...	...	...
Schools of Art	59,598	...	...	5,947	...	...	65,455	...	...	...	...	...	...	...	...	...	...	...	...
Law Schools	73,194	...	...	18,954	...	508	92,656	...	...	...	...	...	...	...	...	...	...	...	...
Technical and Industrial Schools	33,305	...	...	4,710	...	1,586	39,601	...	...	...	...	...	...	...	...	...	...	...	...
Commercial Schools	4,024	...	...	...	...	80	4,104	...	...	...	...	...	...	...	...	...	...	...	...
Agricultural " " " " " "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Schools—																			
Reformatory Schools	52,080	...	...	...	...	4,987	57,067	...	...	...	...	...	...	...	...	...	...	...	...
Missionary Schools	31,102	...	...	2,727	...	2,752	37,181	...	...	...	...	...	...	...	...	...	...	...	...
Musical Schools ... ..	...	...	...	...	...	457	457	...	...	...	...	...	...	...	...	...	...	...	...
Total	2,79,119	949	...	22,200	7	11,183	4,18,491	...	4,912	241	1,007	...	482	6,411	1,59,187	30,331	...	...	...
Total of Direct Expenditure	12,29,354	1,18	571	4,75,079	4,600	25,931	17,81,411	2,945	77,182	4,308	61,427	6,910	4,256	1,59,187	30,331	...	...	...	...

TABLE IV.

ing for the official year 1905-1906.

[illegible]

EDUCATION—G

Return of Expenditure on Public Instruction in the Lower Provinces

PUBLIC MANAGEMENT.																		
UNDER PUBLIC MANAGEMENT.																		
OBJECTS OF EXPENDITURE.	Managed by Government.							Managed by District or Municipal Boards.						Maintained by Native States.				
	Provincial revenues.	District funds.	Municipal funds.	Fees, including fees paid from Mohan Fund.	Subscriptions.	Endowments and other sources.	Total.	Provincial revenues.	District funds.	Municipal funds.	Fees, including fees paid from Mohan Fund.	Subscriptions.	Endowments and other sources.	Total.	Native States' revenues.	Local Funds in Native States.	Municipal Funds raised in Native States.	Fees.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
INDIRECT EXPENDITURE.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Buildings	2,97,162	108	...	...	...	15,630	3,12,900	440	2,016	...	...	329	256	3,041	2,810	...	...	...
Furniture and Apparatus (Special Grants only)	89,066	...	2	...	...	...	39,068	...	3,522	240	...	...	...	3,968	1,531	...	...	...
Total	3,86,228	108	2	...	...	15,630	3,51,968	440	5,538	240	...	329	256	6,909	4,131	...	...	...
University ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Inspection ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scholarships or stipends held in ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Arts Colleges ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Medical College ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Professional Colleges ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Secondary Schools ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Primary ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Medical ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Technical and Industrial Schools ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Special Schools ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Charges for Scholarships ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Miscellaneous—																		
Hostel (Boarding charges) ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charges for abolished Schools ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charges for conducting examinations ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stipends, Prizes and Rewards to unrecognized Tols ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Stipends, Prizes and Rewards to Maktabas ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Payments to other private Schools ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Contingencies and Miscellaneous ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Miscellaneous Charges ... ..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total of Indirect Expenditure	3,86,228	108	2	...	...	15,630	3,51,968	440	5,538	240	...	329	256	6,909	4,131	...	...	...
TOTAL EXPENDITURE ON PUBLIC INSTRUCTION IN 1905-1906	15,65,682	1,248	373	4,75,070	4,500	30,561	20,80,879	3,385	83,721	4,744	61,427	7,275	6,614	1,00,006	34,462	...	...	14,994

TABLE IV—concluded.

Bengal for the official year 1905-1906—concluded.

INSTITUTIONS.												TOTAL EXPENDITURE FROM—								TOTAL.
UNDER PRIVATE MANAGEMENT.												Provincial revenue.	District funds.	Municipal funds.	Fees, including fees paid from Mohan Fund.	ALL OTHER SOURCES.				
Aided by Government or by District or Municipal Boards.						Unaided.										Private.	Public.			
Total.	Provincial revenue.	District funds.	Municipal funds.	Fees, including fees paid from Mohan Fund.	Subscriptions.	Endowments and other sources.	Total.	Fees, including fees paid from Mohan Fund.	Subscriptions.	Endowments and other sources.	Total.						Native States' revenues.	Imperial contributions.		
22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	
Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	
2,910	5,71,991	2,681	1,872	24,902	59,689	78,808	7,39,908	13,661	789	79,909	94,149	8,71,608*	5,006	1,872	25,763	2,39,165	7,800	...	11,52,503	
1,331	7,846	4,706	897	16,461	5,446	19,141	52,696	1,979	189	10,174	12,302	47,512†	3,388†	1,346	16,440	34,412	1,468	...	1,09,156	
4,141	5,77,837	7,687	2,769	39,423	65,234	97,649	7,92,409	15,780	878	89,783	1,06,441	9,18,820	13,395	3,117	55,203	2,62,577	8,648	...	12,61,658	
...	1,60,944‡	...	...	...	1,60,944	
...	92,566	...	...	...	...	...	...	92,566	
...	2,91,326	2,14,236	3,610	...	169	7,739	...	5,17,294	
...	62,000	...	...	...	15,790	...	...	77,790	
...	4,014	...	...	...	4,334	...	...	8,348	
...	16,500	1,339	531	...	...	...	...	18,369	
...	46,817	16,960	197	...	2,671	2,181	...	66,846	
...	2,753	13,679	...	...	178	844	...	17,651	
...	7,682	844	...	...	1,006	115	...	9,511	
...	3,127	3,546	129	...	278	...	...	7,091	
...	1,930	729	...	...	2,536	430	...	5,016	
...	1,43,993	87,000	887	...	20,840	2,270	...	2,10,909	
...	68,686	6	1,321	5,13,197	2,32,130	150	...	8,30,372	
...	2,093	18,809	728	...	134	...	...	21,526	
...	5,692	377	3	1,947	...	...	...	8,019	
...	51	496	...	...	...	...	447	
...	312	3	408	...	18	108	...	760	
...	8,061	3	940	...	898	6	...	9,908	
...	28,120	26,654	2,637	10,397	50,351	...	...	1,27,079	
...	1,12,647	84,803	6,663	5,30,471	2,63,631	236	...	9,68,141	
4,141	5,77,837	7,687	2,769	39,423	65,234	97,649	7,92,409	15,780	878	89,783	1,06,441	16,59,364	3,19,236	14,147	7,46,618	5,73,107	30,183	...	82,31,663	
8,319	11,54,177	7,87,289	59,373	20,77,297	6,81,634	5,10,964	59,80,724	9,71,050	1,51,053	3,51,063	14,73,154	33,94,993	11,77,225	1,06,230	62,90,363	19,89,166	67,908	...	1,10,25,249	

* Including Rs. 2,015 paid to unaided schools from Provincial Revenues.

† Including Rs. 300 paid from Provincial Revenues and Rs. 160 from District Fund to unaided school.

‡ University saved Rs. 886.

§ Excluding Rs. 6,940, Assam Government scholarships.

|| Excluding Rs. 45, Assam Government, and Rs. 388 Central Provinces Government scholarships.

¶ Excluding Rs. 2,966, Assam Government scholarships.

EDUCATION—

Return of the Stages of Instruction of Pupils in Public Schools for Secondary and Primary

CLASS OF SCHOOLS.	Number of schools.	Number of pupils on the rolls on 31st March.	HIGH STAGE.			MIDDLE STAGE.		
			Comprising all pupils who have passed beyond the Lower Secondary (Middle) Stage, but have not passed the Matriculation Examination, or an examination of an equivalent standard.			Comprising all pupils who have passed beyond the Upper Primary Stage, but have not passed beyond the Lower Secondary (Middle) Stage.		
			1			2		
			Boys.	Girls.	Total.	Boys.	Girls.	Total.
1	2	3	4	5	6	7	8	9
SECONDARY SCHOOLS FOR BOYS.								
(English and Vernacular.)								
Government	43	9,880	8,411	...	8,411	1,918	...	1,918
District Fund	17	1,144	...	...	...	...	...	...
Municipal	27	9,471	846	...	846	...	...	...
Native States	102	6,340	...	...	...	1,145	...	1,145
Aided	5	1,090	...	...	...	391	...	391
Unaided	2	179	...	...	...	27	...	27
Total	90	1,981	100	...	100	262	...	262
Government	2	170	...	...	...	25	...	25
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170	...	...	...	...	...	...
District Fund	2	170	...	...	...	...	...	...
Municipal	2	170	...	...	...	...	...	...
Native States	2	170	...	...	...	...	...	...
Aided	2	170	...	...	...	...	...	...
Unaided	2	170	...	...	...	...	...	...
Total	2	170	...	...	...	...	...	...
Government	2	170						

SUPPLEMENT TO THE CALOUTTA GAZETTE, DECEMBER 26, 1906. 1906

GENERAL TABLE V.

Education in the Lower Provinces of Bengal at the end of the official year 1905-1906.

Upper Primary Stage.			Lower Primary Stage.						TOTAL.		
Comprising all pupils who have passed beyond the Lower Primary Stage, but have not passed beyond the Upper Primary Stage.			Comprising all pupils who have not passed beyond the Lower Primary Stage.								
			Reading printed books.			Not reading printed books.					
2			4			5					
Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
10	11	12	13	14	15	16	17	18	19	20	21
1,745	...	1,745	760	...	760	28	...	28	9,880	...	9,880
295	...	295	492	...	492	2-0	...	200	1,193	...	1,193
679	3	682	802	11	703	114	2	1-6	1,385	1	2,471
1,319	...	1,341	2,082	6	2,088	8-0	7	9-5	6,834	16	6,340
231	2	233	204	...	204	0	...	6	1,098	15	1,098
17	...	17	122	...	122	13	...	13	179	...	179
415	3	417	624	1	625	243	11	253	1,007	14	1,081
27	...	27	95	...	95	29	...	29	176	...	176
17,145	19	17,164	16,340	74	16,416	3,058	69	3,106	64,167	183	64,350
3,816	6	3,822	7,771	86	7,857	2,172	64	2,236	15,176	187	15,363
9,858	...	9,858	8,700	7	8,707	1,803	15	1,818	45,527	23	45,550
592	1	593	1,075	3	1,077	378	8	386	2,468	11	2,479
35,948	32	35,980	39,237	193	39,430	8,341	155	8,496	160,187	204	160,391
...	83	83	...	83	83	...	...	...	...	208	208
98	836	934	642	2,090	2,732	63	317	379	833	4,259	5,092
11	73	84	35	210	275	21	167	188	71	508	579
...
...	4	4	5	73	77	...	30	30	5	134	139
104	996	1,100	982	2,455	3,437	43	814	857	898	5,190	6,102
26,052	1,023	27,075	29,900	2,977	32,877	8,434	600	9,034	151,065	5,693	156,758
785	...	785	2,292	19	2,311	908	7	915	4,023	19	4,042
1,703	29	1,732	4,911	642	5,553	976	333	1,309	7,550	930	8,480
8	...	8	201	...	201	109	...	109	478	...	400
59	...	59	3,440	80	3,520	2,697	135	2,832	6,149	315	6,464
19,950	170	20,120	45,010	16,615	61,625	274,247	21,440	295,687	750,820	26,183	777,003
465	10	475	6,254	1,765	8,019	56,563	4,113	60,676	117,463	5,838	123,301
23,123	163	23,286	52,727	17,140	69,867	335,648	25,557	361,405	834,402	43,225	877,627
...	63	63	...	274	274	...	117	117	...	483	483
...
...
54	804	858	1,248	29,553	30,801	659	25,443	26,102	1,953	65,402	67,355
1	65	66	64	3,243	3,307	122	3,081	4,103	187	7,359	7,546
55	931	986	1,920	33,123	34,443	701	29,723	30,513	3,160	63,786	66,946
23,177	1,089	24,267	519,047	50,953	679,310	336,339	55,609	391,938	688,568	167,951	856,519
39,330	2,117	41,447	568,066	63,840	631,806	344,763	66,529	411,292	1,030,323	112,614	1,142,937

EDUCATION—GENERAL TABLE VI.

Return showing the Results of the Prescribed Examinations in the Lower Provinces of Bengal for the official year 1905-1906.

NATURE OF EXAMINATION.	NUMBER OF INSTITUTIONS SENDING EXAMINEES.				NUMBER OF EXAMINEES.					NUMBER PASSED.					RACE OR CREED OF PARENTS SCHOLARS.										
	Institutions under public management.	Aided institutions.	Other institutions.	Total.	Institutions under public management.	Aided institutions.	Other institutions.	Private candidates.	Total.	Institutions under public management.	Aided institutions.	Other institutions.	Private candidates.	Total.	Europeans and Europeans.	Native Christians.	Hindus.	Brahmans.	Non-Brahmans.	Muhammadians.	Buddhists.	Others.			
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22				
I.—ARTS COLLEGES—																									
1. Master of Arts	4	3	4	11	86	38	10	51	185	32	16	2	10	60	...	3	26	36	3	...	...		
2. Bachelor of Arts	6	4	11	21	361	340	786	83	1,679	123	93	164	18	400	...	7	97	362	38	...	...		
3. Bachelor of Science	1	...	...	1	18	...	...	...	18	13	...	...	...	13	...	...	4	3	...	...	...	
4. First Examination in Arts	10	6	19	35	377	338	1,032	37	1,674	160	153	333	47	703	9	30	360	309	23	...	1				
II.—COLLEGES FOR PROFESSIONAL TRAINING.																									
(a)—Law—																									
1. Honours in Law	...	...	...	...	...	...	...	3	3	...	...	...	...	...	...	...	...	...	...	...	...
2. Bachelor of Law	5	...	6	11	37	...	...	473	512	4	...	33	...	36	...	...	36	48	7	...	...		
(b)—Medicine—																									
1. Preliminary Scientific L.M.S.	1	...	...	1	34	...	...	...	34	24	...	...	...	24	...	...	3	18	1	...	...		
2. First L.M.S.					61	...	...	...	61	47	...	...	...	47	...	...	12	30	...	...	...	
3. Combined Preliminary Scientific and First L.M.S.					3	...	...	...	3	...	...	...	...	...	...	...	1	2	...	...	...	
4. Second L.M.S. and Re-examination					8	8	3			
5. Preliminary Scientific M.B.					172	...	...	...	172	96	...	...	...	95	...	4	36	60	1	...	...		
6. First M.B.					67	67	31	9	23			
7. Combined Scientific and First M.B.					1	1	1	1			
8. Second M.B.					7	7	5	4			
9. Honours in Medicine					30	30	36	36		
10. Doctor in Medicine					18	18	6	6		
(c)—Engineering—																									
1. B.E.					1	1	36	36	9	9	1	
2. First Examination in Engineering.					1	1	30	30	16	16	2	...	5	9	
(d)—Agriculture—																									
1. Higher class examination					1	1	11	11	7	7	3	4	
III.—SCHOOLS FOR GENERAL EDUCATION.																									
1. Matriculation	41	176	168	385	808	1,303	1,303	76	3,086	369	312	305	10	1,026	...	12	301	572	50	1	...				
2. B. class examination	1	5	...	6	5	19	...	...	24	3	6	...	...	...	...	...	...	...	...	...	...
3. C. class examination	3	...	1	4	9	...	...	...	13	7	...	...	...	...	...	...	...	...	...	...	...
4. High School Honours examination	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
5. High School examination for Europeans	1	4	1	6	1	34	7	...	42	...	10	2	...	...	...	...	...	...	...	...	...
6. Middle School examination	180	851	253	1,363	1,445	6,247	2,456	...	10,346	1,230	4,090	1,841	...	7,761	...	133	2,417	4,497	684	1	...				
7. Upper Primary examination	23	1	...	24	...	56	10	...	66	...	46	6	...	58	...	23	3	13	...	...	...	
8. Lower Primary examination	269	2,904	386	3,449	1,903	13,717	3,053	...	18,778	1,866	9,781	2,614	...	13,761	...	263	3,511	8,436	1,400	...	...		
9. Madrasah Central examination	1	105	2	108	2	235	17	...	274	2	309	13	...	323	...	105	33	61	...	...	...	
10. Madrasah Central examination	359	14,910	637	16,096	3,032	46,985	3,931	...	55,638	2,136	84,370	3,968	...	89,364	...	301	7,158	36,038	4,815	...	...		
11. Madrasah Central examination	8	560	6	574	37	1,560	24	...	1,581	34	1,017	23	...	1,074	...	340	210	502	24	...	...		
IV.—SCHOOLS FOR SPECIAL EDUCATION.																									
1. Training Schools (English for Masters. Vernacular	5	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
2. School of Arts examination	1	1	...	2	301	17	...	...	406	343	5	...	...	348	...	7	37	161	13	...	...		
3. Vernacular Medical examination	3	...	...	3	124	...	...	...	155	41	...	...	...	41	...	7	17	30	...	...	...	
4. Overseer examination	3	...	...	3	122	...	...	...	153	77	...	...	...	77	...	4	1	20	...	...	...	
5. Sub-Overseer examination	4	...	...	4	45	...	...	...	49	35	...	...	...	35	...	4	1	11	...	...	...	
6. Amin class final examination	1	1	...	2	73	5	...	...	78	52	...	...	...	52	...	...	...	...	...	...	...
7. Survey final examination	1	...	...	1	25	...	...	...	25	23	...	...	...	...	...	...	...	...	...	...	...
8. Accounts examination	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
9. Sanskrit Tibb examination	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
10. " second examination	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
11. " first examination	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
12. Madrasah Central examination	2	...	1	3	26	...	...	...	101	66	...	...	...	66	...	...	...	...	...	...	...

* Details of these figures have not been received.

EDUCATION—GENERAL TABLE VII.

EDUCATION—GEN

Return showing the Distribution of District Board and Municipal Expenditure on

EXPENDITURE BY DISTRICT BOARDS ON PUBLIC INSTRUCTION.															
OBJECTS OF EXPENDITURE.	IN INSTITUTIONS MANAGED BY DISTRICT BOARDS.											IN INSTITUTIONS MANAGED BY—			Total District Board Expenditure on public instruction.
	Number of institutions.	Number of scholars on the rolls on the 31st of March.	Average number on the rolls monthly during the year.	Average daily attendance.	Provincial revenues.	District funds.	Municipal funds.	Fees.	Subscriptions.	Endowments and other sources.	Total.	The Government.	Municipal Boards.	Private persons or Associations.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
COLLEGIATE EDUCATION.															
Arts Colleges	1	82	28	20	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Professional Colleges	1	82	28	20	...	900	950	1,217	175	3,886	7,128	...	...	...	900
Total for Collegiate Education	1	82	28	20	...	900	950	1,217	175	3,886	7,128	...	...	...	900
DIRECT EXPENDITURE.															
SCHOOL EDUCATION, GENERAL.															
Secondary Schools.															
For Boys—															
High Schools	90	683	630	419	100	8,013	...	12,178	...	...	12,178	...	250	2,619	2,869
Middle "	102	1,778	1,770	1,391	64	36,253	...	8,444	2,090	21	20,218	...	240	82,224	91,427
For Girls—															
High Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	120	180
Middle "	...	...	...	...	...	...	...	...	...	...	...	...	...	108	108
Total Secondary Schools	129	8,750	8,245	6,510	164	46,266	...	35,533	5,034	42	80,589	...	490	1,08,798	1,84,586
Primary Schools.															
For Boys	93	8,342	8,077	6,351	33	24,363	...	3,187	...	...	27,576	224	...	1,57,197	1,82,764
	2	138	138	10	...	402	...	2	...	...	429	12	...	4,71,216	4,71,630
Total Primary Schools for Boys	95	8,480	8,215	6,460	33	25,765	...	3,200	...	...	28,005	236	...	6,08,413	6,34,416
For Girls	...	...	...	...	...	...	...	...	...	...	...	...	...	5,861	3,861
	...	...	...	...	...	...	...	...	...	...	...	...	...	64,344	64,344
Total Primary Schools for Girls	...	...	...	...	...	...	...	...	...	...	...	...	...	68,205	68,205
Total Primary Schools for Boys and Girls	95	8,480	8,215	6,460	33	25,765	...	3,207	...	...	28,005	236	...	6,66,618	6,92,619
SCHOOL EDUCATION, SPECIAL.															
SCHOOLS FOR SPECIAL INSTRUCTION.															
Training Schools—															
(a) For Masters	...	...	...	...	...	...	...	...	...	...	...	...	...	60	60
(b) For Mistresses	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Schools of Art	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Law Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Medical Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	1,933	6,745
Engineering and Surveying Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Technical and Industrial Schools	6	116	121	67	...	4,812	240	1,007	...	482	6,541	...	...	408	408
Commercial Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	1,980	1,980
Agricultural Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Other Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	4,280	10,405
Total	6	116	121	67	...	4,812	240	1,007	...	482	6,541	140	...	4,280	10,405
INDIRECT EXPENDITURE.															
Buildings	...	...	...	...	40	2,016	...	...	329	356	3,091	108	...	2,901	8,885
Furniture and apparatus (special grants only)	...	...	...	...	...	3,532	...	...	...	...	3,532	...	...	4,896	8,380
Total	...	...	...	...	40	5,538	...	...	329	356	6,523	108	...	7,797	13,265
Inspection	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scholarships held in—															
Arts Colleges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1,300
Medical Colleges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	10,500
Other Professional Colleges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	13,500
Secondary Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Primary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	3,500
Medical	...	...	...	...	...	...	...	...	...	...	...	...	...	...	700
Technical and Industrial Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	27,000
Other Special Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Charges for Scholarships	...	...	...	...	...	...	...	...	...	...	...	...	...	...	64,000
Miscellaneous	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
GRAND TOTAL FOR 1905-1906	231	17,378	10,610	13,977	697	82,231	1,190	30,904	6,428	4,666	1,35,080	1,293	400	7,87,449	11,77,330

EDUCATION—GENERAL TABLE VIII.

Return showing the Attendance and Expenditure in Hostels or Boarding-houses in the Lower Provinces of Bengal for the official year 1905-1906

CLASS OF HOSTELS OR BOARDING-HOUSES.	NUMBER OF—		NUMBER OF BOARDERS WHO ARE STUDENTS OF—					EXPENDITURE FROM—						REMARKS.
	Hostels or board- ing-houses.	Boarders.	Arts colleges.	Colleges for Pro- fessional Train- ing.	Secondary schools.	Primary schools.	Special schools.	Provincial reve- nues.	District or Muni- cipal funds.	Subscriptions and endowments.	Fees.	Native State revenues.	Total expenditure.	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
For Males—														
Managed by Govern- ment.	29	1,560	325	...	542	8	622	25,682	...	2,206	75,315	...	1,12,193	
Managed by District or Municipal Boards.	...	...	...	...	...	...	...	...	...	...	...	...	...
Aided by Government or by District or Muni- cipal Boards.	81	3,225	204	...	1,689	323	506	10,917	1,227	64,961	1,22,528	...	2,00,637	
Maintained by Native States.	3	61	...	...	43	18	...	...	...	...	...	180	180	
Unaided	240	5,644	24	5	2,512	1,788	506	...	...	55,234	1,48,514	..	2,53,848	
Total ...	353	10,790	1,206	5	5,290	2,205	1,784	46,499	1,227	1,53,891	2,48,071	180	5,47,828	
For Females—														
Managed by Govern- ment.	3	176	6	20	128	12	...	15,771	...	...	13,420	...	29,191	
Managed by District or Municipal Boards.	...	...	...	...	...	...	...	...	...	...	...	...	...
Aided by Government or by District or Muni- cipal Boards.	31	2,287	7	15	1,644	562	59	6,308	...	23,539	1,57,808	...	1,62,746	
Maintained by Native States.	...	...	...	...	...	...	...	...	...	...	...	...	...
Unaided	23	1,402	...	...	276	1,095	32	...	...	20,700	908	...	40,698	
Total ...	57	3,865	13	25	2,057	1,679	91	22,129	...	78,239	1,72,136	...	2,72,544	
GRAND TOTAL ...	410	14,655	1,219	40	7,347	3,874	1,875	68,628	1,227	2,32,130	2,18,197	180	6,20,372	

SUPPLEMENT TO THE CALCUTTA GAZETTE, DECEMBER 26, 1908. 1975

EUROPEAN EDUCATION—GENERAL TABLE III.

EUROPEAN

EDUCATIONAL—GENERAL

Return of Schools and Scholars in European

CLASS OF INSTITUTIONS.	PUBLIC INSTITUTIONS.																	
	UNDER PUBLIC MANAGEMENT.												UNDER PRIVATE MANAGEMENT.					
	Managed by Government.				Managed by District or Municipal Boards.				Maintained by Native States.				Aided by Government or by District or Municipal Boards.					
	Number of institutions.	Number of scholars on the rolls on 31st March.	Average number on the rolls monthly during the year.	Average daily attendance.	Number of institutions.	Number of scholars on the rolls on 31st March.	Average number on the rolls monthly during the year.	Average daily attendance.	Number of institutions.	Number of scholars on the rolls on 31st March.	Average number on the rolls monthly during the year.	Average daily attendance.	Number of institutions.	Number of scholars on the rolls on 31st March.	Average number on the rolls monthly during the year.	Average daily attendance.	Number of institutions.	Number of scholars on the rolls on 31st March.
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Arts Colleges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	(a) 1	1
SCHOOL EDUCATION, GENERAL.																		
Secondary Schools.																		
For Boys—																		
High schools English	...	...	...	...	...	...	...	...	...	...	...	...	...	4	922	905	832	3
Middle " "	1	164	167	150	...	...	...	...	...	...	...	...	...	7	1,123	1,093	1,007	...
Total for boys schools	1	164	167	150	...	...	...	...	...	...	...	...	...	11	2,045	1,998	1,839	3
For Girls—																		
High schools English	...	...	...	...	...	...	...	...	...	...	...	...	...	7	905	1,013	868	...
Middle " "	1	117	84	79	...	...	...	...	...	...	...	...	...	21	2,234	2,090	1,834	...
Total for girls schools	1	117	84	79	...	...	...	...	...	...	...	...	...	28	3,223	3,103	2,702	...
GRAND TOTAL OF SECONDARY SCHOOLS FOR BOYS AND GIRLS.	2	281	251	229	...	...	...	...	...	...	...	...	...	39	5,267	5,101	4,541	3
Primary Schools.																		
For Boys—																		
Upper primary	...	...	...	...	...	...	...	...	...	...	...	...	...	5	375	373	305	...
Lower " "	...	...	...	...	...	...	...	...	...	...	...	...	...	2	90	84	76	...
Total Primary schools for boys	...	...	...	...	...	...	...	...	...	...	...	...	...	7	474	457	381	...
For Girls—																		
Upper primary	...	...	...	...	...	...	...	...	...	...	...	...	...	12	519	513	445	1
Lower " "	...	...	...	...	...	...	...	...	...	...	...	...	...	3	121	86	86	1
Total Primary schools for girls	...	...	...	...	...	...	...	...	...	...	...	...	...	15	640	599	531	2
GRAND TOTAL PRIMARY SCHOOLS FOR BOYS AND GIRLS.	...	...	...	...	...	...	...	...	...	...	...	...	...	22	1,114	1,056	912	2
SCHOOLS FOR SPECIAL INSTRUCTIONS.																		
Training Schools—																		
For Missions	...	...	...	...	...	...	...	...	...	...	...	...	...	(b) 1	6	6	6	...
Commercial Schools	...	...	...	...	...	...	...	...	...	...	...	...	...	3	96	112	75	...
Total	1	20	20	20	...	...	...	...	...	...	...	...	...	4	101	118	81	...
TOTAL SCHOOLS AND COLLEGES OF PUBLIC INSTRUCTION.	3	281	271	249	...	...	...	...	...	...	...	...	...	66	6,782	6,575	5,734	6

(a) Loreto House.

(b) The Kindergarten Training Department.

EDUCATION.

TABLE III.

Schools for the official year 1905-1906.

No.		Average number on the rolls monthly during the year.		Average daily attendance.		Grand total of institutions.	Grand total of scholars on the 31st of March.	NUMBER OF SCHOLARS ON THE 31ST OF MARCH LEARNING—									Number of girls in Boys' schools.	Number of boys in Girls' schools.	REMARKS.
								English.			A classical language.			A vernacular language.					
								Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.			
20	21	22	23	24	24a	24b	25	25a	25b		26a	26b	27	28	29				
6	6	1	1	...	1	1	...	...	...	...	...	...	...	...	...
743	653	7	1,745	1,746	...	1,746	928	...	928	9	...	9	...	...	...	
...	...	8	1,287	1,288	34	1,287	832	8	840	...	...	...	34	...	...		
742	653	15	3,035	3,001	34	3,035	1,500	8	1,268	9	...	9	34	...	...		
...	...	7	884	171	817	888	24	400	403	...	...	...	...	...	171
...	...	23	2,351	454	1,897	2,351	138	730	868	...	...	...	...	...	454
...	...	20	3,380	625	2,714	3,350	162	1,199	1,361	...	...	...	...	...	635
743	660	44	6,974	3,020	2,748	6,974	1,422	1,307	2,629	9	...	9	34	635	...				
...	...	5	378	237	141	378	9	14	23	10	10	29	141	...	...		
...	...	3	96	89	8	96	13	8	21	...	...	...	8	...	...		
...	...	7	474	325	149	474	22	23	44	19	10	29	149	...	...		
7	5	14	825	273	553	825	2	1	3	...	...	...	...	...	273
8	6	4	130	44	86	130	...	...	...	...	...	...	...	...	44
15	11	18	656	310	630	955	3	1	3	...	...	...	...	...	310
16	11	25	1,429	641	788	1,429	24	25	47	19	10	29	149	316	...				
...	...	3	26	...	26	26	...	...	...	...	...	...	...	...	...
...	...	5	121	79	43	121	...	...	...	...	...	...	...	...	...
765	660	75	7,925	4,340	3,679	7,925	1,446	1,360	2,676	28	10	38	183	941	...				

The Welland Memorial School, Calcutta.

EUROPEAN EDUCATION—GENERAL TABLE IIIA.

Number of Scholars on the 31st March 1906, classified according to sex, race, or creed.

		Euro- peans and Rus- sians.	Native Chris- tians.	HINDUS.		Muham- madans.	Bud- dhists.	Paria.	Others.	Total.
				Brah- mans.	Non- Brah- mans.					
1		2	3	4	5	6	7	8	9	10
COLLEGIATE EDUCATION.										
Arts Colleges	Male	...	...	...	...	...	...	...	...	...
	Female	...	...	...	...	...	...	...	...	...
	Total	1	...	...	...	...	...	...	...	1
SCHOOL EDUCATION—GENERAL.										
<i>Secondary Schools.</i>										
<i>For Boys—</i>										
High Schools	Male	1,001	3	36	21	33	...	63	13	1,740
	Female	...	...	...	...	...	...	...	...	...
	Total	1,001	3	36	21	33	...	63	13	1,740
<i>Middle Schools—</i>										
English	Male	1,168	6	6	9	31	3	20	10	1,203
	Female	83	...	...	3	...	...	...	...	86
	Total	1,251	6	6	12	31	3	20	10	1,289
<i>For Girls—</i>										
High Schools	Male	150	7	1	...	...	...	3	10	171
	Female	732	11	51	...	...	1	8	16	817
	Total	882	18	52	...	...	...	11	26	988
<i>Middle Schools—</i>										
English	Male	306	7	6	...	...	3	3	71	395
	Female	1,737	13	8	...	3	1	35	111	1,897
	Total	2,043	20	14	...	3	4	38	182	2,297
<i>Primary Schools.</i>										
<i>For Boys</i>										
...	Male	314	7	3	...	...	...	...	3	327
	Female	146	3	...	...	...	...	...	1	149
	Total	460	10	3	...	...	...	...	4	474
<i>For Girls</i>										
...	Male	290	4	3	...	...	...	13	6	316
	Female	597	17	3	...	...	...	15	3	635
	Total	887	21	6	...	...	...	28	9	951
SCHOOL EDUCATION—SPECIAL.										
<i>Training Schools</i>										
...	Male	36	...	...	...	...	...	...	...	36
	Female	...	...	...	...	...	...	...	...	...
	Total	36	...	...	...	...	...	...	...	36
<i>Commercial Schools</i>										
...	Male	23	3	20	31	3	...	...	...	79
	Female	16	...	...	...	...	...	...	...	16
	Total	39	3	20	31	3	...	...	...	95
GRAND TOTAL										
		7,190	78	127	63	66	6	149	345	7,895

EUROPEAN EDUCATION—GENERAL TABLE IV.

FOR EUROPE

EDUCATION—G

Return of Expenditure on Public Instruction in European States

PUBLIC INSTRUCTION.																				
UNDER PUBLIC MANAGEMENT.																				
OBJECTS OF EXPENDITURE.	Managed by Government.							Managed by District or Municipal Boards.							Maintained by Native States.					
	Provincial Revenues.	District Funds.	Municipal Funds.	Fees, including fees paid from Mohsin Fund.	Subscriptions.	Endowments and other sources.	Total.	Provincial Revenues.	District Funds.	Municipal Funds.	Fees, including fees paid from Mohsin Fund.	Subscriptions.	Endowments and other sources.	Total.	Native States revenues.	Local Funds in Native States.	Municipal Funds raised in Native States.	Post.	Subscriptions.	Endowments and other sources.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
DIRECT EXPENDITURE.																				
COLLEGIATE EDUCATION.																				
Arts Colleges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SCHOOL EDUCATION, GENERAL.																				
<i>Secondary Schools.</i>																				
<i>For Boys—</i>																				
High schools ... English	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Middle " ... Ditto	21,451	...	...	6,756	...	...	28,207	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for Secondary Schools for Boys	21,451	...	...	6,756	...	...	28,207	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>For Girls—</i>																				
High schools ... English	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Middle " ... Ditto	18,195	...	...	3,170	...	...	21,365	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for Secondary Schools for Girls	18,195	...	...	3,170	...	...	21,365	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Secondary Schools both for Boys and Girls.	39,646	...	...	9,926	...	...	49,572	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>Primary Schools.</i>																				
<i>For Boys—</i>																				
Upper primary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lower "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for Primary Schools for Boys	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
<i>For Girls—</i>																				
Upper primary	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Lower "	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total for Primary Schools for Girls	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Primary Schools both for Boys and Girls.	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
SCHOOLS FOR SPECIAL INSTRUCTIONS.																				
Training schools for Mistresses	1,886	...	...	...	...	...	1,886	...	...	...	...	...	...	...	...	...	...	...	...	...
Commercial schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	1,886	...	...	...	...	...	1,886	...	...	...	...	...	...	...	...	...	...	...	...	...
Total of Direct Expenditure	41,532	...	...	9,926	...	...	51,458	...	...	...	...	...	...	...	...	...	...	...	...	...
INDIRECT EXPENDITURE.																				
Buildings	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Furniture and apparatus (special grants only)	9,226	...	...	...	...	...	9,226	...	...	...	...	...	...	...	...	...	...	...	...	...
Total	9,226	...	...	...	...	...	9,226	...	...	...	...	...	...	...	...	...	...	...	...	...
Inspection	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scholarships or stipends held in—																				
Secondary schools	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total charges for scholarships	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Miscellaneous—																				
Boarding charges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Charges for conducting examinations	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Payments to European cadets	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Contingencies and miscellaneous	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total Miscellaneous Charges	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total of Indirect Expenditure	9,226	...	...	...	...	...	9,226	...	...	...	...	...	...	...	...	...	...	...	...	...
TOTAL EXPENDITURE ON PUBLIC INSTRUCTION IN 1906-1907.	50,784	...	...	9,926	...	...	60,664	...	...	...	...	...	...	...	...	...	...	...	...	...

EDUCATION.

TABLE IV.

Bengal for the official year 1905-1906.

[illegible]

FOR EUROPEAN EDUCATION.

EDUCATION—GENERAL TABLE V.

Return of the Stages of Instruction of Pupils in Public European Schools for Secondary and Primary Education in Bengal at the end of the official year 1905-1906.

CLASS OF SCHOOLS.	Number of schools.	Number of pupils on the rolls on 31st March.	HIGH STAGE.			MIDDLE STAGE.			UPPER PRIMARY STAGE.			LOWER PRIMARY STAGE.						TOTAL.		
			Comprising all pupils who have passed beyond the Lower Secondary (Middle) Stage, but have not passed the Matriculation examination, or an Examination of an equivalent standard.			Comprising all pupils who have passed beyond the Upper Primary Stage, but have not passed beyond the Lower Secondary (Middle) Stage.			Comprising all pupils who have passed beyond the Lower Primary Stage, but have not passed beyond the Upper Primary Stage.			Comprising all pupils who have not passed beyond the Lower Primary Stage.								
												Reading printed books.			Not reading printed books.					
			1			2			3			4			5					
			Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.	Boys.	Girls.	Total.
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21
SECONDARY SCHOOLS FOR BOYS.																				
<i>(English and Vernacular.)</i>																				
Government ... English ...	1	164	...	...	...	84	...	84	46	...	46	32	...	32	...	...	...	166	...	166
Aided ... " ...	11	2,045	117	...	117	603	13	619	561	12	573	727	9	736	...	...	...	2,012	34	2,046
Unaided ... " ...	3	826	131	...	131	320	...	320	280	...	280	106	...	106	...	...	...	826	...	826
Total ...	15	3,035	248	...	248	1,010	13	1,023	878	12	890	863	9	874	...	...	...	3,001	34	3,035
SECONDARY SCHOOLS FOR GIRLS.																				
<i>(English and Vernacular.)</i>																				
Government ... English ...	1	117	...	...	...	...	53	53	...	39	39	...	23	23	...	...	...	...	117	117
Aided ... " ...	28	3,323	4	78	82	21	671	692	88	638	726	513	1,210	1,723	...	...	...	685	2,597	3,282
Unaided ... " ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	29	3,339	4	78	82	21	724	745	88	677	765	513	1,236	1,747	...	...	...	685	2,714	3,399
Total Secondary Schools for boys and girls.	44	6,374	252	78	830	1,031	797	1,788	966	699	1,635	1,377	1,244	2,021	...	...	...	3,686	2,746	6,432
PRIMARY SCHOOLS FOR BOYS.																				
Aided ...	7	474	...	...	...	...	...	...	76	48	124	240	101	350	...	...	...	325	149	474
Unaided ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Total ...	7	474	...	...	...	...	...	...	76	48	124	240	101	350	...	...	...	325	149	474
PRIMARY SCHOOLS FOR GIRLS.																				
Aided ...	16	940	...	...	...	...	...	...	40	144	184	270	496	766	...	...	...	510	630	1,140
Unaided ...	2	15	...	...	...	...	...	...	1	1	2	5	5	13	...	...	...	6	1	7
Total ...	18	955	...	...	...	...	...	...	41	145	186	275	496	769	...	...	...	516	631	1,147
Total Primary Schools for boys and girls.	25	1,429	...	...	...	...	...	...	117	193	310	515	506	1,119	...	...	...	841	781	1,622
GRAND TOTAL FOR 1905-1906 for Secondary and Primary Schools	69	7,803	282	78	330	1,031	797	1,768	1,083	892	1,965	1,901	1,830	3,740	...	...	...	4,527	3,527	8,054

REPORT OF THE COTTON CROP OF BENGAL, 1906.

The following note is published for general information.

R. W. CARLYLE,

Chief Secy. to the Govt. of Bengal.

The 19th December 1906.

DEPARTMENT OF AGRICULTURE, BENGAL.

REPORT ON THE COTTON CROP OF BENGAL, DECEMBER 1906.

[On an average of the five years ending 1904-1905, the area under cotton crops in the territory to which the present forecast relates has represented some 0·6 per cent. of the total area under cotton crops in India.]

Explanatory.—The forecasts of the cotton crop issued in August and October dealt with the area sown with cotton this year, and with the general condition of the crop. The present forecast deals with revised estimates of the area sown, and furnishes also an estimate of the probable outturn.

Character of the season.—Of the early cotton-growing districts of Bengal, the Sonthal Parganas, Sambalpur, Manbhum, Singhbhum and Angul are the most important. The climatic conditions in these districts, covering 81 per cent. of the entire early cotton area, as well as in the other early cotton districts, Sambalpur excepted, were favourable throughout the season. In the last-named district, some little damage was done to the crop by heavy rain during the flowering season in October.

In Saran, the most important of the late cotton districts, and also in Champaran, Darbhanga, and in the Sadar subdivision of Muzaffarpur where late cotton only is almost entirely grown, the crops suffered to a very considerable extent from excessive rain and floods. From the other late cotton districts, the prospects are reported to be satisfactory.

Area sown.—The area sown with early cotton this year is estimated at present at 37,428 acres against 37,400 acres shown in the October forecast, and against 36,504 acres estimated in December last year. The area sown with late cotton amounts to 32,376 acres up to date. Sowings are reported to be still going on in Cuttack.

Outturn.—The outturn of early cotton, calculated from the data furnished by District Officers, comes to 5,763 bales of 400 lbs. each, and that of late cotton, similarly calculated, to 9,363 bales. Supplementing this produce with an additional 5 per cent. crop for the fibre grown in the Native

States, for which statistics are not available, the total aggregate outturn for the Province works out as follows:—

				Bales.
Early cotton	...	...	...	6,051
Late "	..	..	...	9,831
Gross total of both varieties				15,882

C. A. OLDHAM,

Director of Agriculture, Bengal.

CALCUTTA;
The 11th December 1906.

Forecast of the cotton crops of Bengal, December 1906.

District.	AREA (IN ACRES).						YIELD (IN BALES OF 400 LBS. EACH).						FIGURES FROM THE CADASTRAL SURVEY.				(Remarks by District Officer.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Of current year's crops (1906-07).			Of previous year's crops (1905-06).			Average of preceding—			Column 4.			Column 5.			Total area of the district which has been cadastrally surveyed.		Years during which the cadastral survey took place.	Area found under cotton during the cadastral survey.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
	Percentage by which column 3 exceeds (+) or is less than (-) area in—			Percentage by which column 2 exceeds (+) or is less than (-) area in—			Average of preceding—			Column 6.			Column 7.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
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Bakura	{ Early Late	265	1,700	1,700	1,000	1,700	1,000	1,000	1,700	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,000	1,00

The condition of the crop is good.

The October rains has damaged the crop to a certain extent. The out-turn will therefore be very poor.

Early cotton is not grown in this district. The general condition of the crop is good.

The general condition of the crop is reported to be good so far.

District.	Area (in acres).				Yield (in BALS OF 400 lbs. EACH).						FIGURES FROM CADASTRAL SURVEY.				Remarks by District Officer.		
	Of current year's crop (1906-07).		Of previous year's crops (1905-06).		Percentage by which column 2 exceeds (+) or is less than (-) area in—		Average of preceding—		Percentage by which column 7 exceeds (+) or is less than (-) yield in—		Total area of the district which has been cadastrally surveyed.		Years during which cadastral survey took place.			Area found under cotton during the cadastral survey.	
	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
	Column 3.	Column 4.	Column 5.	Column 6.	Column 7.	Column 8.	Column 9.	Column 10.	Column 11.	Column 12.	Column 13.	Column 14.	Column 15.	Column 16.			
Baran	Early ...	200	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Late ...	18,900	12,572	14,440	28,320	...	...	...	...	...	...	...	...	...	...	...
Champan	Early ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Late ...	1,007	923	2,040	2,120	167	72	723	806	+120'78	-74'49	-78'41	2,250,840	1893 to 1899.	...	...
Mumabhar	Early ...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
	Late ...	3,000	4,951	6,107	5,763	1,560	1,613	2,116	1,930	+48'08	-29'11	-25'44	1,942,400	1891-92 & 1890-1900.	...	...
Barbhanga	Early ...	183	16	...	...	...	...	...	...	...	...	...	...	...	...	...
	Late ...	3,407	3,312	1,850	5,260	415	340	477	1,625	+13'46	-13'60	-74'03	2,142,600	1893 to 1903.	...	...
Moatya	Early ...	100	170	261	330	...	...	...	66	+100'00	-69'27	-73'73	983,538	1901 to 1904.	...	Not recorded.
	Late ...	380	300	...	...	...	...	170	133	+15'36	-53'35	-77'45	...	...	...	...

Locality	Year	Area	Production	Price	Value	Cost	Profit	Remarks
Bharatpur	1900	76	1,255	1,907	1,087,948	1,087,948	0	The decrease in the net-turn is due to some damage caused by floods.
Bharatpur	1901	76	1,255	1,907	1,087,948	1,087,948	0	The general condition of the crop is good.
Bharatpur	1902	76	1,255	1,907	1,087,948	1,087,948	0	Scanty rainfall at the time of sowing and also at the time of growth has affected the output this year. The sowing of late cotton will continue till the end of December in this district.
Bharatpur	1903	76	1,255	1,907	1,087,948	1,087,948	0	The general condition of the crop is good. The date of sowing was not.
Bharatpur	1904	76	1,255	1,907	1,087,948	1,087,948	0	Although the Sagar subdivision was cadastrally surveyed, separate figures were not ascertained under each head of crops. Cotton is not grown in the Khondwals subdivision. The present condition of the cotton crops is good.
Bharatpur	1905	76	1,255	1,907	1,087,948	1,087,948	0	The cotton plants were in good condition before flowering, but excessive rain in October has caused loss.
Bharatpur	1906	76	1,255	1,907	1,087,948	1,087,948	0	The general condition of the crop is very satisfactory.
Bharatpur	1907	76	1,255	1,907	1,087,948	1,087,948	0	The season is favourable to the crop.
Bharatpur	1908	76	1,255	1,907	1,087,948	1,087,948	0	The weather was more favourable than last year.

No return has been received. Figures have been entered after consideration of previous returns and of the conditions of weather of the whole season.

Diets.	AREA (IN ACRES)					YIELD (IN BALES OF 400 lbs. EACH)					FIGURES FROM CADASTRAL SURVEY.				Remarks by District Officers.			
	Of current year's crops (1906-07).		Of previous year's crops (1905-06).		Average of preceding—	Percentage by which column 2 exceeds (+) or is less than (-) area in—		Of current year, i.e., of area in column 2.		Of previous year, i.e., of area in column 3.		Average of preceding—	Percentage by which column 7 exceeds (+) or is less than (-) yield in—			Total area of the district which has been cadastrally surveyed.	Years during which cadastral survey took place.	Area found under cotton during the cadastral survey.
	3	4	5	6		7	8	9	10	11	12		13	14					15
1.																		
Manbham	Early ...	2,900	4,400	7,440	9,360	+14.71	-57.03	-53.48	680	1,734	1,960	+14.70	-54.76	-60.00	...	...	The low outturn is due to want of timely rain.
	Late ...	1,399	1,300	1,300	...	...	...	-67.12	600	636	1,310	...	+11.53	-54.96	...	...
Bingbham	Early ...	4,000	4,000	4,360	4,870	...	-6.96	-17.86	630	1,306	1,475	...	-55.59	-57.07	...	...	The general condition of the crop is good.
	Late ...	3,000	3,000	2,700	2,800	...	+11.11	+16.29	480	1,071	967	...	-57.98	-53.03	...	...
Total	Early ...	37,025	38,000	64,184	69,351	+6.06	-33.96	-46.05	5,753	13,493	16,503	+9.54	-57.29	-65.23	...	...	The general condition of the crop is good.
	Late ...	22,576	26,565	41,923	50,553	-10.95	-23.53	-46.03	9,203	11,031	20,130	-15.04	-57.03	-53.40	...	...

RESOLUTION ON THE EMBANKMENT AND DRAINAGE REPORTS FOR
THE YEAR 1905-1906.

No. 2598I.

Government of Bengal

IRRIGATION DEPARTMENT.

IRRIGATION.

Dated Calcutta, the 22nd. December 1906.

RESOLUTION.

READ—

The Embankment and Drainage Reports for the year 1905-1906.

A summary of the expenditure incurred on works and repairs (exclusive of book charges for establishment and tools and plant) during the year on embankments and drainage works in Bengal is given in the following statement:—

	1905-1906.
	Ra.
I.—Embankments—	
Class A.—Government embankments in Orissa ...	49,195
Class B.—Schedule D and other Government embankments ...	2,63,654
Class C.—Maintained by Government under contract with samindars ...	1,06,082
Class D.—Maintained by Government with an annual apportionment of charges on estates benefited ...	7,166
II.—Works undertaken under the provisions of the Drainage Act, VI (B.O.) of 1880 ...	11,916
III.—Works undertaken under the provisions of the Sanitary Drainage Act, VIII (B. O.) of 1895 ...	1,81,254
IV.—Drainage works carried out under the provisions of the Embankment Act, II (B. O.) of 1882 ...	39,228
V.—Drainage works carried out at the cost of Government, but not under the provisions of any Act ...	24,025
Total ...	6,82,520

2. *Lengths of Embankments and areas protected.*—The lengths of embankments in each class and the areas to which they give protection are shown below:—

Circle.	Class.	Length.	Areas protected.
1	2	3	4
		Miles. Feet.	Acres.
Orissa ...	A	516	1,565
	B	315	1,793
	C	6	1,146
	D	Nil.	Nil.
	Total	837	4,504
South-Western ...	A	762	3,793
	B	236	1,014
	C	8	1,456
	D	Nil.	Nil.
	Total	1,007	983
			Acres.
			644,691*
			446,880
			44,800
			Nil.
			1,136,371
			Nil.
			2,928,108
			252,646
			79,571
			3,260,325

* In addition to this area 540,000 acres are efficiently protected by the flood banks of the Orissa Canals, the total length of which is 298 miles 4,678 feet.

Circle.	Class.	Length.		Areas protected.
1	2	3		4
		Miles.	Feet.	Acres.
Gandak ...	A ...	Nil		Nil.
	B ...	Nil		Nil.
	C ...	234	100	4,039,680
	D ...	56	2,740	196,320
	Total ...	290	2,840	4,236,000
Northern ...	A ...	Nil		Nil
	B ...	Nil*		Nil.
	C ...	Nil		Nil.
	D ...	6	1,694	17,042
	Total ...	6	1,694	17,042
Abstract ...	A ...	516	1,565	644,691
	B ...	1,078	306	3,374,988
	C ...	476	2,260	4,337,126
	D ...	71	610	292,933
	Total ...	2,141	4,741	8,649,738

* 1,691 feet of spur embankments, Panar river, were maintained during the year at Government expense.

There has been a net increase of 1,673 feet in the length of the class A embankments in Orissa, mainly due to the construction of retired lines. In the South-Western Circle, there was an addition of 507 feet to the length of schedule D embankments owing to the construction of a cross bund at Mowah in the district of Murshidabad connecting the Bhagirathi left embankment with the Bhagawangola retired line. The Rampur-Boalia embankments (Schedule D, Nos. 55, 56, 56A and 56B) in the district of Rajshahi were transferred to the Government of Eastern Bengal and Assam during the year, as also the embankments in the districts of Malda, Pabna and Bogra. The aggregate length of these embankments is 10 miles and 2,050 feet.

3. *Floods.*—During the year, the monsoon floods in the Orissa rivers were low and no damage was done to any of the Government works except two small breaches in the left embankment of the Bhargovi river. These were promptly closed. There was, however, a very unusual winter flood in the Brahmini and Kharsua rivers which caused some damage to the *dalia* rice crop. In the Gandak Circle there were no heavy floods during the year. The Gandak river rose on 30th July to 240·60 at Siswa, 242·40 being the highest recorded flood level. The flood level in the Ganges at *Bazilpur* was 4·05 lower than that of the previous year. The highest flood in the Bagmati in September rose to 185·32, at Belahiaghat against 190·40, the recorded flood level of 1893. The Burgandak river at Secunderpur rose to 176·40 on 12th August. This was only 1·30 below the highest recorded reading.

There were heavy floods in the South-Western Circle and the embankments were damaged. The highest flood of the year in the Cossye river occurred on the 30th September. The highest flood in the Selye and Rupanarain (or Darakeswar) rivers was on the 29th July. There were three floods in the Damodar between July and September. The highest was on the 29th July, when the gauge at Edilpur read 16 feet 6 inches, which is the same as the maximum recorded flood level of 1902. No serious damage was done to the embankment, but the bamboo spurs at the base of the removed embankment on the right bank at Nathu, Sadipur and Srikistipur were slightly damaged. The flood in the Ajai river on 29th July was 3 feet 9 inches lower than the highest recorded level of 1899. The river protective works were slightly damaged. The floods in the rivers in the Purnea and Bhagalpur districts were of ordinary character and caused no injury to the embankments.

4. *Surveys and investigations.*—In the Orissa Circle investigations were made into the existing village irrigation system in the district of Puri, while the possibilities of further irrigation from the Salia river were under investigation. Investigations in regard to the question of the maintenance of the channels of approach to and discharge from all the sluices in the embankments were completed. In the Gandak Circle surveys in connection with a proposal for a sluice and channel from the Bya river were carried out. In the South-Western Circle surveys were made of the schedule D embankments with the object of establishing a record of the formation level of the crests of those embankments. Surveys were also made of the villages exposed to inundation by the removal of the Laltakuri marginal embankment in the Murshidabad district.

5. *Original works.*—The outlay of the year (without charges for establishment and tools and plant) under this head amounts to Rs. 64,473 distributed over the different classes of embankments as under:—

			1905-1906.	1904-1905.
			Rs.	Rs.
Class A	...	...	15,385	20,560
" B	...	...	49,088	16,674
" C	...	...	Nil.	Nil.
" D	...	...	Nil.	1,104
Total			64,473	38,338

The more important works are briefly noted:—

In the Orissa Circle the two escapes on the Kushbhadra river referred to in last year's report were completed at a total cost of Rs. 13,470, the expenditure of the year being Rs. 11,680. The stone paving at the head of Tantighai on the right bank of the river Khursuah was in progress at the end of the year. The construction of a permanent escape at Achootpore in the 5th mile Bhargovi left embankment, was completed during the year, the total cost being Rs. 22,250.

In the South-Western Circle an expenditure of Rs. 29,160 was incurred on raising the embankment on the left bank of the Hooghly. The work was nearly completed at the close of the year. A sum of Rs. 15,633 was expended on the embankments along the Nadia rivers principally on the strengthening of the Bhagwangola retired line.

In the Gandak Circle the construction of the drainage sluice in the 6th mile of the Bazitpur embankment referred to in last year's report was completed except the outfall and the approach channels.

6. *Ordinary repairs.*—The expenditure on repairs (without book charges for establishment and tools and plant) aggregated Rs. 3,32,049, which is distributed under the different classes of embankments as follows:—

			1905-1906.	1904-1905.
			Rs.	Rs.
Class A	...	...	33,810	26,689
" B	...	...	2,14,566	2,36,572
" C	...	...	1,06,082	1,27,828
" D	...	...	7,166	5,058
Total			3,61,624	3,96,147

The expenditure on repairs to the Orissa embankments was Rs. 33,810, against Rs. 26,689 in the previous year. The total cost of repairs to the schedule D embankments (class B) in the Midnapore district which are in the Orissa Circle was Rs. 29,012, of which Rs. 3,452 were expended on retired lines of embankments, Rs. 5,028 on making a diversion cut of the Raniakhal at the 29th mile of the sea-dyke.

In the South-Western Circle, the expenditure on ordinary repairs to Schedule D and other embankments was Rs. 1,42,392, against Rs. 1,02,629 in the previous year. The excess took place chiefly in the districts of Burdwan, Hooghly, Midnapore, Murshidabad and 24-Parganas.

The heavy expenditure in the Burdwan district was due to repairs done to the Damodar left embankment. The excess in the Hooghly district was due to repairs and extensions of the stone revetments in the Rupnarain left embankment and the Damodar left and right embankments. The comparatively heavy expenditure in the Murshidabad district was chiefly due to extensive repairs to the Bhagirathi embankment.

On (class C) *takavi* embankments under contract in the Midnapore, Muzaffarpur, Saran and Champaran districts, a sum of Rs. 1,06,082 was expended during the year, as compared with the contract provision of Rs. 1,05,070. The outlay incurred on the maintenance and special repairs of the Gandak embankments was Rs. 66,984, against Rs. 65,286 in the preceding year. The amount spent on special repairs was Rs. 48,894, against Rs. 43,817 in the preceding year. The expenditure on repairs to the Midnapore embankments in the Cossye and Balasore Divisions was Rs. 39,098, against Rs. 60,303, of the previous year.

On (class D) *takavi* embankments the outlay incurred on repairs was Rs. 7,166, against Rs. 5,058 in the previous year.

7. *Breaches*.—In the Orissa Circle only two small breaches occurred in the Bhargovi left embankment.

In the South-Western Circle 15 breaches occurred in the schedule D embankments and three in the *takavi* embankments. The total expenditure incurred in closing breaches and in making good damage caused by flood was Rs. 34,443, against Rs. 32,693 in the previous year. There were no breaches in the embankments in the Gandak and Northern Circles.

8. *Retired lines*.—In the Orissa Circle the amount expended in constructing retired lines of embankments, including in this head slope-cutting which is an alternative measure, was Rs. 6,546, against Rs. 5,064 in the previous year. In the South-Western Circle the cost of constructing retired lines in the Burdwan, Midnapore, Murshidabad and 24 Parganas districts was Rs. 8,100, against Rs. 63,165 in the previous year. No retired lines were constructed in the Gandak and Northern Circles.

9. *River protective works*.—In the Orissa Circle the total outlay incurred on repairs to the revetment and river protective works was Rs. 4,883, against Rs. 675 in the preceding year. The expenditure on river protective works in the Gandak Circle amounted to Rs. 4,110, against Rs. 6,482 of the year before.

10. *Financial*.—The actual outlay during the year on the Orissa embankments (class A) maintained as agricultural works, exclusive of charges for establishment and tools and plant was Rs. 33,810, against Rs. 26,689 in the previous year, the average rate per mile being Rs. 65. The expenditure on class B Government embankments was Rs. 2,14,566, against Rs. 2,36,572 in the previous year, the average rate being Rs. 199, against Rs. 217 in 1904-1905.

Government has contracted to maintain certain embankments on behalf of the persons benefited at a fixed annual charge in the districts of Saran, Champaran, Muzaffarpur and Midnapore. The following statement shows the expenditure incurred on these embankments as compared with the contract payments :—

YEAR.	MIDNAPORE DISTRICT.		SARAN DISTRICT.		CHAMPARAN DISTRICT.		MUZAFFARPUR DISTRICT.	
	Maintenance charge.	Contract amount.	Maintenance charge.	Contract amount.	Maintenance charge.	Contract amount.	Maintenance charge.	Contract amount.
1	2	3	4	5	6	7	8	9
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
1900-1901 ...	...	...	14,704	25,000	...	...	...	...
1901-1902 ...	31,100	50,301	5,919	25,000	...	...	...	...
1902-1903 ...	30,800	50,301	12,353	25,000	...	...	...	...
1903-1904 ...	27,205	50,301	26,501	25,000	4,815	20,000	7,451	10,415
1904-1905 ...	60,003	50,765	43,687	25,000	12,334	20,000	11,544	10,415
1905-1906 ...	39,008	50,765	26,105	25,000	24,074	20,000	11,005	...
Total ...	1,84,695	2,70,383	1,28,201	1,43,400	47,063	60,000	30,000	31,345

NOTE.—The figures in this table under column "Maintenance charge" represent the cash outlay on maintenance and repair without any book charges for establishment or tools and plant.

11. *Works undertaken under the provisions of the Drainage Act, VI (B. C.) of 1880*.—The Dankuni, Howrah, Rajapur and Burajalla drainage works in

the Hooghly district in charge of the Executive Engineer, Northern Drainage and Enbankment Division, were maintained in good order during the year. The cost of their maintenance compared with the previous year is shown below :—

		1904-1905.	1905-1906.	Annual amount fixed for maintenance.
		Rs.	Rs.	Rs.
Dankuni	..	1,119	1,126	4,300
Howrah	...	3,071	5,303	2,000
Rajapur	...	7,828	7,753	5,000
Berajalla	...			
Total	...	12,018	14,182	11,300

There was some loss of crops in a small area in Rajapur basin, due to the overflow from Ampta basin which is at present undrained. The income derived from land-rent, fisheries, tolls on boats and other sources has hitherto been credited to the Civil Department. It has since been decided that all receipts shall be finally adjusted in the books of this Department.

Towards the close of the year a proposal was sent up by the Collector of Nadia for the drainage of the Choriucole swamp near Kumarkhali in the Kushtia subdivision of the district under the provisions of the Bengal Drainage Act, VI (B. C.) of 1880. The project which will be carried out through the agency of the District Board, Nadia, has received administrative sanction at an estimated cost of Rs. 24,644 and Drainage Commissioners have been appointed.

12. *Works undertaken under the provisions of the Sanitary Drainage Act, VIII (B. C.) of 1895.*—The only work taken up under the Sanitary Drainage Act is the Magra Hât drainage scheme in the 24-Parganas district. It is designed to drain the swamps around Magra Hât in the central portion of the tracts enclosed by the 24-Parganas embankments. The swamps are mainly those along the Kaorapukhar khal, near Hotar, those connected with the Surjipur sluice, those at Joynagar and along the Srichandra and Sangrampur khals, as well as north of the railway near Sangrampur and at Dhosa and Habka. The rough estimates amounting to Rs. 17,39,000 have been approved by the Municipal Department of this Government. The work being very urgently required has been put in hand in anticipation of the sanction of the Secretary of State which has been applied for.

During the year under review Rs. 1,68,775 were spent on work and Rs. 12,479 on the acquisition of land.

13.—DRAINAGE WORKS CARRIED OUT UNDER THE PROVISIONS OF THE EMBANKMENT ACT, II (B. C.) OF 1882.

Original works.—In the South-Western Circle, the embankment on the left bank of the Peali river with two sluices was completed during the year at a total cost of Rs. 71,979, the expenditure of the year being Rs. 6,596. Work was in progress during the year on the construction of a sluice at Dhutkhali in the 108th mile of the 24-Parganas embankment. The expenditure during and to end of the year was respectively Rs. 9,583 and Rs. 15,412. Arrangements were made to start work during the year on the construction of a sluice at Fulbagicha in the 131st mile of the schedule D embankment, No. 78. A scheme was prepared for improving the drainage of the Arapanch basin in the 24-Parganas, which involved a new length of embankment and a new sluice. The matter is still under consideration. In the meantime the outfall channel leading from the existing sluice in the embankment has been cleared which will give relief for some years. In the Orissa Circle the silt-clearance of the Kunjapur and other khals was completed during the year at a total cost of Rs. 19,432, the expenditure of the year being Rs. 3,872. A project for the drainage of the lands within the Argoal circuit embankment was commenced during the year and a sum of Rs. 14,609 was expended. The construction of the sluices in the 16th mile of the Kalinagar Hassia embankment (schedule D, No. 45) and in the 12th mile of the Jalpai embankment (schedule D, No. 53) referred to in the previous year was completed.

Maintenance and repairs.—The Charrial khal drainage scheme was maintained in good condition during the year at a cost of Rs. 2,492, against Rs. 854 in the previous year. With a few exceptions all the sluices in the schedule D embankment, 24-Parganas district, were efficiently maintained during the year at a total cost of Rs. 1,634. The Kumrool sluice and channel in the 53rd mile of the Damodar left embankment were repaired and maintained during the year at a cost of Rs. 377.

14.—DRAINAGE WORKS CARRIED OUT AT THE COST OF GOVERNMENT, BUT NOT UNDER THE PROVISIONS OF ANY ACT.

Original Works.—A commencement was made in the improvement of the drainage channel from Daudpur to Utterpadima, known as the Tajpur drainage project, in the Contai subdivision of the Balasore Division.

On the Bullee Bhil in the South-Western Circle Rs. 5,066 were expended on repairs and maintenance. In the Balasore Division the Balliaghye main drain was kept open to traffic throughout the year, while the branch drain from 0 mile to the 6th mile post was closed to traffic for silt-clearance from 1st January 1906 till the end of the year. A sum of Rs. 8,139 was spent on silt-clearance and the work was in progress at the close of the year. The outlay on the silt-clearance of the khas tansil khals in charge of this Department was Rs. 9,217.

Order.—Ordered that a copy of the Resolution and of its appendices (A and B) be published in the Supplement to the *Calcutta Gazette* and submitted to the Government of India, Public Works Department, for information.

Ordered also that copies of the Resolution and of its appendices (A and B) be forwarded to the Revenue and Financial Departments of this Government; the Secretary to the Board of Revenue, Lower Provinces; the Commissioners of the Presidency, Burdwan, Patna, Bhagalpur, Chota Nagpur and Orissa Divisions; the Director-General of Commercial Intelligence; the Superintending Engineers of the Orissa, South-Western, Sone, Gandak, and Northern Circles; and the Examiner, Public Works Accounts, Bengal, for information.

By order of the Lieutenant-Governor of Bengal,

W. A. INGLIS,

Secretary to the Government of Bengal.

GOVERNMENT OF BENGAL.

IRRIGATION DEPARTMENT.

APPENDIX A.

of Public Embankments in Bengal, in charge of Government officers showing their lengths and actual cost of repairs (without charges for Establishment and Tools and Plant) during the year 1905-1906.

DISTRICT.	MILES OF EMBANKMENTS.						Total miles of embankments.	EXPENDITURE OF THE YEAR ON REPAIRS.									
	Maintained at the expense of Government.		Maintained at the expense of the persons benefited.					Class A.		Class B.		Class C.			Class D.		
	Class A.	Class B.	Under Contract.	By annual apportionment of charges.	Total.	Total.		Rate per mile.	Total.	Rate per mile.	Total.	Rate per mile.	Contract rate.	Total.	Rate per mile.		
			Class C.	Class D.													
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	
ORISSA EMBANKMENTS MAINTAINED UNDER ACT XXXII of 1884.																	
Balasore ...	51	3,220	...	...	...	...	51	3,220	4,007	120	...	...	...	...	...	...
Cuttack ...	215	4,754	...	...	...	...	215	4,754	17,494	81	...	...	...	...	...	...
Puri ...	248	4,621	...	...	...	...	248	4,621	9,700	30	...	...	...	...	...	...
Total Orissa Embankments.	516	1,605	...	...	...	...	516	1,605	32,510	65	...	...	...	...	...	...
EMBANKMENTS OTHER THAN ORISSA MAINTAINED UNDER ACT II (B.C.) of 1882.																	
Masaffarpur	55	400	27	2,740	79	2,140	79	2,140	...	...	11,006	311	10,415	1,411	
Darbhanga	17	2,800	17	2,800	...	...	...	...	...	...	...	...
Baran	115	5,322	...	...	115	5,222	...	...	...	...	35,106	310	32,000	1,300	
Champurua	63	4,038	...	...	63	4,038	...	...	...	...	30,374	274	30,000	...	
Total	234	100	45	1,400	79	1,430	...	...	...	...	66,386	286	64,515	2,771	
Bhagalpur	3	2,900	3	2,900	...	...	...	...	...	...	...	...
Purnea	0	1,005	...	3	4,014	3	4,014	...	...	1,000	3,100	...	...	...	...
Monghyr	11	1,320	11	1,320	...	...	...	...	...	...	...	...
Total	0	1,005	17	3,014	17	3,014	...	...	1,000	3,100	...	...	...	...
Murshidabad	74	877	...	...	...	74	877	...	...	17,978	224	...	...	...	...
Nadia	1	17	...	...	...	1	17	...	...	54	54	...	...	...	...
Se-Parganas	200	3,553	...	...	2	1,320	2	1,320	212	3,902	...	60,700	194	...	...
Total	274	3,474	...	2	1,320	2	1,320	212	4,788	...	60,130	204	...	...
Burdwan	33	1,100	...	...	...	33	1,100	...	...	30,294	441	...	...	...	...
Birbhum	3	1,320	...	...	...	3	1,320	...	...	541	204	...	...	...	...
Hoochly	104	3,340	...	...	...	170	3,365	...	...	30,790	241	...	...	...	...
Midnapore	643	1,606(a)	248	2,100(b)	0	126	248	2,226	786	3,901	...	76,473	144	30,000	161	
Total	783	3,110	248	2,100	6	126	248	2,226	1,041	4,400	...	...	1,55,427	190	
Total Embankments other than Orissa.	1,078	1,972	476	2,200	71	610	547	2,870	1,025	4,248	...	...	2,14,865	190	

(a) Includes 315 miles, 1,793 feet of Schedule D embankments in the Balasore Division.

(b) Includes 6 miles, 1,146 feet of Jukt embankment in the Balasore Division.

* Built embankments constructed to protect the Civil Station of Araria.

GOVERNMENT OF BENGAL.

IRRIGATION DEPARTMENT.

APPENDIX B.

Statement showing the outlay incurred, recoveries made, and balance outstanding on account of Embankments and Drainage works (class D) maintained during the year 1905-1906.

CIRCLE.	Names of embankments and drainage works.	District.	Balance at the end of 1904-1905.	Outlay during 1905-1906.	Total outlay to the end of 1905-1906.	Amount recovered and adjusted by Civil Department during 1905-1906.	Balance unadjusted on 31st March 1906.
1	2	3	4	5	6	7	8
	EMBANKMENTS.		Rs.	Rs.	Rs.	Rs.	Rs.
GANDAK	Turki embankment ...	Muzaffarpur ...	...	1,594	1,594	1,594	...
	Daudpur ditto ...	Ditto ...	...	204	204	204	...
	Bazilpur ditto ...	Darbhanga ...	...	1,063	1,063	1,063	...
	Monghyr ditto ...	Monghyr ...	...	925	925	925	...
	Manarikhali ditto ...	Hooghly ...	...	2,338	2,338	2,338	...
SOUTH WESTERN.	Tolly's Nala ditto ...	24 Pargannas ...	...	595	595	595	...
	Peani left ditto ...	Ditto ...	...	6,596	6,596	6,596	...
	Rajbundi bund ...	Midnapore ...	81	54	135	63	73
NORTHERN ..	Hooghly right embankment from Ulubaria to Champa Khal.	Ditto ...	...	8,639	8,639	...	8,639
	Chandan embankment ...	Rhagelpur ...	802	607	1,409	802	607
	Belwa ditto ...	Purnea ...	66	127	193	66	127
	Total ...		1,009	23,343	24,351	14,906	9,445
	DRAINAGE WORKS.						
	Kumrai sluice ...	Hooghly ...	...	377	377	377	...
	Charrial drainage works ...	24 Pargannas ...	...	2,492	2,492	2,492	...
	Sringar ditto ...	Ditto ...	...	256	256	256	...
	Potty repairs to takavi sluices ...	Ditto ...	...	1,378	1,378	1,378	...
	Dainan sluice ...	Midnapore ...	23	133	156	156	2
	Total ...		23	4,636	4,660	4,667	2
	GRAND TOTAL ...		1,032	27,978	29,010	19,563	9,447

(COMPILED BY THE BOARD OF REVENUE.)

Statement of recoveries made during the year ending 31st March 1906 on account of embankments (class C) maintained under the contract system.

DISTRICT.	Annual demand.	Arrear due from previous years.	Advance payment at credit.	Net demand.	COLLECTIONS.				Balance.
					Current.	Arrear.	Advance.	Total.	
1	2	3	4	5	6	7	8	9	10
	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.	Rs.
Beran (Gandak embankment) ..	22,000 (a)	10,000 (c)	850	22,700	15,514	9,361	928	25,793	7,091
Champanan (ditto) ...	20,000	5,824	14	25,819	16,593	5,400	328	22,321	3,498
Muzaffarpur (ditto) ...	2,300	6,611 (d)	1,518	12,401	2,171	5,026	1,423	8,610	6,304 (f)
Darbhanga (ditto) ...	2,115	1,326	167	2,304	867	1,040	113	2,020	1,307
Midnapore (Midnapore embankment).	50,787 (b)	20,631 (e)	2,900 (e)	63,325	24,275	20,631	4,264	49,170	21,783 (g)
Total ...	1,04,797	60,120	6,465	1,68,382	59,420	37,423	7,041	1,03,884	40,790
	1,64,917				1,10,843				

(a) The difference of Rs. 3 in column 2 as compared with the last year's return is due to the increase of Rs. 3 in embankment cess demand owing to increase in the land revenue value of certain estates by resettlement.

(b) The difference compared with the last year's return is due to the actual annual demand having been shown here.

(c) The difference of Rs. 3 in column 3 is due to the correction made in the assessment of two estates.

(d) The decrease of Rs. 1 is due to partitions and omission of fractions of a rupee less than eight annas.

(e) The difference of Rs. 111 and Rs. 351 in the figures shown in columns 3 and 4 as compared with the figures shown in columns 10 and 8 of the last year's return is due to the transfer of some advance amounts to the arrears due from certain estates.

(f) Out of this a sum of Rs. 340 has been collected since the close of the year and for the remaining action will be taken under the certificate procedure.

(g) This balance has been arrived at by deducting Rs. 764 due from Government on account of khas mahals benefited by the embankment.

PRICES-CURRENT (*RETAIL*) OF FOOD-GRAINS AND SALT

IN THE

HEAD-QUARTERS STATION BAZARS OF THE DISTRICTS OF BENGAL
DURING THE FORTNIGHT ENDING THE 15TH DECEMBER 1906.

PRICES-CURRENT (retail) of Food-grains and Salt in the Head-quarters

No. of.	DISTRICTS.	QUANTITIES PER RUPEE IN											
		WHEAT.			BARLEY.			RICE, COMMON.			JOWAR OR CHOLU (Sorghum Vulgare).		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
BURGHAN DIVISION.													
1	Burdwan	...	...	...	...	...	...	8 10 New	8 4 New	13 0	...	...	...
2	Birbhum	7 0	9 0	11 4	...	...	...	8 4 Old	9 0 Old	13 8	...	...	...
3	Bankura	11 0	11 0	12 0	...	...	...	9 0 New	8 8 Old	15 0 Old	...	...	...
4	Midnapore	10 0	10 0	9 0	...	...	...	9 0 New	10 0 New	14 0	...	...	...
5	Hooahly	8 8	8 8	8 8	...	...	...	7 8	7 8	10 0	...	...	...
6	Howrah	...	...	12 0	...	...	...	8 0	7 12	11 8	...	...	...
7	24-Parganas	10 0	10 0	10 0	...	...	...	9 0	9 0	11 8	...	...	...
8	Calcutta	10 0	10 0	10 0	12 14	12 14	12 4	8 14	9 14	7 0	...	...	...
9	Nadia	10 8	11 0	14 8	...	13 5	...	8 8	8 10	12 4	...	...	...
10	Murshidabad	11 0	11 0	14 8	8 0	15 0	22 0	8 12	8 8	13 0	...	...	...
11	Jessore	8 0	8 0	10 0	8 0	8 0	11 4	8 0	8 0	11 0	...	...	...
12	Khulna	...	...	...	...	...	...	8 8	8 8	10 0	...	...	...
BIHAR.													
13	Patna	11 12	11 12	11 8	13 4	13 4	20 0	7 6	7 8	16 0	14 4	14 4	...
14	Gaya	11 4	11 12	12 5	14 5	13 5	20 8	9 11 New	8 11 Old	14 13	11 14	13 7	...
15	Mahabud	11 0	11 0	12 0	13 0	12 0	15 0	10 8 New	9 12 Old	16 8	...	...	...
16	Baran	11 8	11 4	11 0	15 0	14 8	18 0	9 0	9 0	14 0	...	...	15 0
17	Champan	10 0 to 11 0	10 0	14 0	13 0	13 0	20 0	9 4	9 0	15 8	...	...	...
18	Monsarpur	10 8	10 8	11 0	13 0	13 0	16 0	8 0	8 0	11 0	...	...	...
19	Darbhanga	11 0	11 0	14 4	13 3	13 3	17 9	6 0	7 11	15 6	...	...	...

- A. In the subdivisions the retail prices of salt per rupee are—Katwa 16 seers 8 chitaka; Raniganj 16 seers Kalna 17 seers.
- B. At Rampur Hat the retail price of salt is 16 seers.
- C. At Vishnupur the retail price of salt is 16 seers per rupee.
- D. In the subdivisions the retail prices of salt (panga) per rupee are—Contal 16 seers; Tamruk 16 seers; Ghatal 17 seers 8 chitaka.
- E. In the subdivisions the retail prices of salt per rupee are—Serampore 16 seers (Liverpool); Arambagh 16 seers (Karkatch).
- F. At Ulubaria the retail price of salt is 16 seers per rupee.
- G. In the parts in the interior of the district the retail prices of salt per rupee are—Ghatia 16 seers; Barasat 16 seers; Baduria 16 seers (crushed); Mograbat 16 seers; Barrackpore return not received.
- H. In the subdivisions the retail prices of salt per rupee are—Kuchua 16 seers (panga); Chudanga 13 seers (karkatch); Moherpur 16 seers (karkatch); Ranaghat 12 seers (crushed).

PAJRA OR CUMBU
Pennisetum typhoid-
eum). MANUA OR RAOI
(*Eleusine Corocana*).

1998a

KANONI OR KAKUM,
ITALIAN MILLET
(*Sesaria italica*).

GRAM, CHANA
CHHOLA, NADALAT
OR SUNAGA
(*Cicer arisianum*).

Present return.			Next preceding re- turn.			Corresponding re- turn of last year.			
S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.	S.	Ch.
...	12	4	11	4	12	8
...	10	8	10	8	12	0
...	11	8	11	8	12	1
...	10	0	10	0	10	8
...	12	0	12	0	12	8
...	9	10	9	10	11	0
...	11	0	12	0	13	0
...	11	8	11	8	13	0
...	7	0	10	10	10	10	11
...	11	8	11	0	16	0
...	11	0	11	0	15	0
...	10	0	8	0	16	0
...	9	0	9	0	14	0
10	8	10	8	...	12	0	11	8	15
11	4	11	4	13	8	13	8	17	1
...	13	0	13	0	16	0
10	0	10	0	12	0	13	8	14	0
...	12	8	12	8	16	0
...	12	8	12	8	13	0
...	11	8	11	0	17	0

Station Bazars of the districts of Bengal on the 15th December 1906.

												WHOLESALE PRICES PER MAUND OF 40 SEERS.															
INDIAN-CORN OR MAIZE (Zea mays).						ARHAR (dal) OR TUR, CADJAN PEA (Cajanus indicus)						SALT.						SALT.						DISTRICTS		Number.	
Present return.		Next return.		Corresponding return of last year.		Present return.		Next return.		Corresponding return of last year.		Present return.		Next return.		Corresponding return of last year.											
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Rs.	A. P.	P.	Rs.	A. P.	P.	BENGAL.									
...	...	...	8 0	8 4	9 0	17 12	17 0	16 8	2 4	0	2 6 0	2 3 6						Burdwan.	1						
...	...	...	5 4	4 8	5 4	15 0	15 0	14 0	2 8	0	2 8 0	2 10 0						Hidhuti.	2						
...	...	...	8 4	8 0	10 1	16 0	16 0	16 8	2 8	0	2 8 0	2 7 0						Hankura.	3						
...	...	...	6 8	6 8	8 8	13 12	13 12	14 0	2 5	0	2 5 0	2 6 0						Midnapore.	4						
...	14 0	14 0	16 0	14 0	14 0	16 0	2 4	0	2 4 0	2 8 0								5							
...	...	...	8 0	8 0	9 0	17 0	17 0	16 0	2 8	0	2 8 0	2 6 0						Honghly.	5						
...	...	...	7 12	8 8	9 0	17 0	16 0	16 0	2 4	0	2 4 0	2 4 0						Howrah.	6						
...	...	...	7 8	7 8	10 8	16 0	16 0	16 0	2 1	0	2 1 0	2 0 0						24-Parganas.	7						
13 0	13 0	12 4	6 14	6 14	8 0	16 0	16 0	14 0	2 2	0	2 2 0	2 8 0						Calcutta.	8								
...	...	...	8 0	6 6	8 0	16 0	16 0	16 0	2 5	0	2 5 0	2 6 0						Nadia.	9						
...	...	...	7 0	7 0	8 0	16 0	16 0	16 0	2 8	0	2 8 0	2 8 0						Muralidabad.	10						
...	...	...	10 0	10 0	13 4	16 0	16 0	12 0	2 8	0	2 8 0	3 0 0						Jessore.	11						
...	...	...	8 0	8 0	9 0	13 0	13 5	13 8	2 12	0	2 12 0	2 12 0						Khulna.	12						
13 0	12 12	16 0	7 8	7 8	9 8	16 0	16 2	16 0	2 8	0	2 7 0	2 8 0						BHAH.									
13 13	13 5	18 7	7 8	7 8	9 8	15 14	15 14	15 14	2 9	0	2 9 0	2 8 0						Patna.	13								
...	...	...	...	...	...	...	...	...	...	...	...	...						Gaya.	14			
13 0	12 8	19 0	8 0	8 0	8 0	16 0	16 0	16 0	2 8	0	2 8 0	2 8 0						Shahabad.	15								
12 8	12 0	17 0	7 8	7 8	9 0	16 0	16 0	16 0	2 7	0	2 8 0	2 8 0						Saran.	16								
12 8	11 8	18 0	6 12	6 12	10 8	15 0	15 0	15 0	2 10	9	2 10 9	2 18 0						Chamratan.	17								
12 0	12 8	17 0	7 0	7 0	9 0	14 8	14 8	14 0	2 10	6	2 10 6	2 12 0						Munaffarpur.	18								
12 1	12 1	17 9	6 0	5 8	14 4	14 4	14 4	14 4	2 13	0	2 13 0	2 14 0						Darbhanga.	19								

- I. In the subdivisions the retail prices of salt per rupee are—Jangipur 16 seers; Lalbagh 14 seers; Kundi 16 seers.
J. In the subdivisions the retail prices of salt per rupee are—Jhenida 13 seers 12 chitaks (karkatch); Magura 12 seers (karkatch); Bangaon 16 seers (panga) and Narail 14 seers 3 chitaks (panga).
K. In the subdivisions the retail prices of salt per rupee are—Bagerhat 12 seers (karkatch); Satkhira 16 seers.
L. In the subdivisions the retail prices of salt per rupee are—Bara 16 seers; Bihar 14 seers.
M. In the subdivisions the retail prices of salt per rupee are—Jannabad 16, Nawada 18 and Aurangabad 16 seers.
N. In the subdivisions the retail prices of salt per rupee are—Bazar 16 seers; Bhadua 11 seers and Sasarnar 16 seers.
O. In the subdivisions the retail prices of salt per rupee are—Siwan 16 seers; Gopalganj 15 seers 14 chitaks (panga).
P. At Hettimb the retail price of salt is 14 seers 8 chitaks per rupee.
Q. In the subdivisions the prices of salt per rupee are—Sitamarhi 15 seers; Hajipur 16 seers.
R. In the subdivisions the retail prices of salt per rupee are—Samastipur and Madhubani return not received.

PRICES-CURRENT (retail) of Food-grains and Salt in the Head-quarters

Number.	DISTRICTS.	QUANTITIES PER RUPEE IN											
		WHEAT			BARLEY			RICE, COMMON.			JOWAR OR CHOLU (Sorghum Vulgare).		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
BIHAR—concluded.													
BAGALPUR DIVISION.	20 Monghyr ...	11 0	10 8	12 9	Not sold.	13 0	...	8 8	New 9 0	14 8	...	...	...
	21 Bhawalpur ...	11 6	11 6	13 14	12 10	13 10	20 4	9 8 Old 5 12 New 6 8	8 14 Old 5 8 New 6 8	14 8 14 0 13 0	...	...	...
	22 Patna ...	9 0	9 8	13 5	...	...	...	7 0	7 0	10 0	...	...	...
	23 Darjeeling ...	...	...	...	...	...	...	...	...	...	...	...	...
	24 Moulana Parganas ...	9 0	9 8	10 0	11 8	13 0	18 0	10 0	11 4	15 0	...	...	...
ORISSA.													
ORISSA DIVISION.	25 Cuttack ...	11 18	10 8	11 18	...	...	...	11 25	10 8	14 7	...	...	...
	26 Balasore ...	11 12	11 0	13 0	...	...	...	9 0	10 0	13 0	...	...	...
	27 Angul ...	6 0	6 0	9 0	...	...	...	11 8	11 8	13 0	...	...	...
	28 Puri ...	9 13	9 13	11 7	...	...	...	10 8	10 8	12 7	...	...	...
	29 Sambalpur ...	13 0	13 0	12 0	...	...	...	11 8	12 0	16 6	...	...	...
CHOTA NAGPUR													
CHOTA NAGPUR DIVISION.	30 Hazaribagh ...	...	10 0	10 8	...	14 0	17 8	...	9 0	13 0	...	...	...
	31 Ranchi ...	{ 9 8 to 10 8	{ 9 8 to 10 8	{ 8 0 to 10 0	{ 14 0 to 14 0	14 0	15 0	11 0	12 0	14 0	...	...	...
	32 Palamu ...	10 11	11 4	14 10	13 8	12 6	...	9 1	10 2	15 12	...	...	...
	33 Manbhum ...	10 0	11 0	11 0	12 0	10 8	13 0	10 0	10 0	15 0	...	...	...
	34 Murshidabad ...	10 0	10 0	13 0	...	...	...	10 0	10 0	13 0	...	...	...

* Return not received.

- S. In the subdivisions the retail prices of salt (panga) per rupee are—Jamui 16 seers; Bogusarai return not received.
- T. In the subdivisions the retail prices of salt per rupee are—Banka 13½ seers; Madhipura return not received; and Supaul 14 seers.
- U. In the subdivisions the retail prices of salt per rupee are—Kishanganj 14 seers; Basantpur 14 seers.
- V. In the subdivisions the retail prices of salt per rupee are—Kurseong 11 seers and Siliguri 10 seers 8 chitaks.
- W. In the subdivisions the retail prices of salt per rupee are—Jamtara 13 seers; Pakour report not received, Deoghar 16 seers and Rajmahal and Godda return not received.

CALCUTTA,
The 21st December 1906.

SEERS OF 80 TOLAHS.

BATA OR CUMBU <i>Prunellum typhoid-</i> <i>eum</i>).				MARUA OR RAGI <i>(Hleusina Corvacea)</i>			
Present return.		Next preceding re- turn.		Corresponding re- turn of last year.		Present return.	
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
1	000	000	000	000	000	000	000
2	000	000	000	000	000	000	000
3	000	000	000	000	000	000	000
4	000	000	000	000	000	000	000
5	000	000	000	000	000	000	000
6	000	000	000	000	000	000	000
7	000	000	000	000	000	000	000
8	000	000	000	000	000	000	000
9	000	000	000	000	000	000	000
10	000	000	000	000	000	000	000
11	000	000	000	000	000	000	000
12	000	000	000	000	000	000	000
13	000	000	000	000	000	000	000
14	000	000	000	000	000	000	000
15	000	000	000	000	000	000	000
16	000	000	000	000	000	000	000
17	000	000	000	000	000	000	000
18	000	000	000	000	000	000	000
19	000	000	000	000	000	000	000
20	000	000	000	000	000	000	000
21	000	000	000	000	000	000	000
22	000	000	000	000	000	000	000
23	000	000	000	000	000	000	000
24	000	000	000	000	000	000	000
25	000	000	000	000	000	000	000
26	000	000	000	000	000	000	000
27	000	000	000	000	000	000	000
28	000	000	000	000	000	000	000
29	000	000	000	000	000	000	000
30	000	000	000	000	000	000	000
31	000	000	000	000	000	000	000
32	000	000	000	000	000	000	000
33	000	000	000	000	000	000	000
34	000	000	000	000	000	000	000
35	000	000	000	000	000	000	000
36	000	000	000	000	000	000	000
37	000	000	000	000	000	000	000
38	000	000	000	000	000	000	000
39	000	000	000	000	000	000	000
40	000	000	000	000	000	000	000
41	000	000	000	000	000	000	000
42	000	000	000	000	000	000	000
43	000	000	000	000	000	000	000
44	000	000	000	000	000	000	000
45	000	000	000	000	000	000	000
46	000	000	000	000	000	000	000
47	000	000	000	000	000	000	000
48	000	000	000	000	000	000	000
49	000	000	000	000	000	000	000
50	000	000	000	000	000	000	000
51	000	000	000	000	000	000	000
52	000	000	000	000	000	000	000
53	000	000	000	000	000	000	000
54	000	000	000	000	000	000	000
55	000	000	000	000	000	000	000
56	000	000	000	000	000	000	000
57	000	000	000	000	000	000	000
58	000	000	000	000	000	000	000
59	000	000	000	000	000	000	000
60	000	000	000	000	000	000	000
61	000	000	000	000	000	000	000
62	000	000	000	000	000	000	000
63	000	000	000	000	000	000	000
64	000	000	000	000	000	000	000
65	000	000	000	000	000	000	000
66	000	000	000	000	000	000	000
67	000	000	000	000	000	000	000
68	000	000	000	000	000	000	000
69	000	000	000	000	000	000	000
70	000	000	000	000	000	000	000
71	000	000	000	000	000	000	000
72	000	000	000	000	000	000	000
73	000	000	000	000	000	000	000
74	000	000	000	000	000	000	000
75	000	000	000	000	000	000	000
76	000	000	000	000	000	000	000
77	000	000	000	000	000	000	000
78	000	000	000	000	000	000	000
79	000	000	000	000	000	000	000
80	000	000	000	000	000	000	000

KANOI OR KAKON, ITALIAN MILLET (<i>Sesuvia italica</i>).			GRAM, CHANA, CHHOLA, KADALAY OR SUNAGA (<i>Clerodendron</i>).		
Present return.	Next preceding turn.	Corresponding turn of last year.	Present return.	Next preceding turn.	Corresponding turn of last year.
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.
...	12 0	11 8	15 0
...	12 10	12 10	16 4
...	10 0	10 0	10 0
...	8 8	9 0	9 12
...	10 8	10 8	13 0
			Biri or kahai.		
...	13 2	11 13	15 12
...	10 0	10 0	13 0
...	11 4	11 0	14 8
...	12 0	12 0	15 0
...	11 2	11 2	13 4
...	10 0	10 0	13 0
...	11 0	14 0
...	{ 10 8 to 11 0 }	11 0	13 0
...	12 6	13 8	16 0
...	10 8	11 0	12 0
...	10 0	10 0	13 0

Station Bazars of the districts of Bengal on the 15th December 1906—concl'd.

												WHOLESALE PRICES PER MAUND OF 40 SEERS.				
INDIAN-CORN OR MAIZE (Zea mays).			ARHAR (dal) OR TUR, CADJAN PEA (cajanus indicus).			SALT.			SALT.			DISTRICTS.		Number.		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.					
S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	S. Ch.	Ra. A. P.	Ra. A. P.	Ra. A. P.	B. H. A.—concluded.				
11 12	11 8	18 0	6 13	6 8	8 6	15 11	15 11	15 0	2 10	4 2 10 0	2 10 0	Monghyr	20			
12 0	12 0	20 4	6 15	7 0	8 14	15 8	15 8	15 12	2 6	9 2 6 9	2 8 0	Bhagalpur	21			
10 8	10 8	21 0	6 8	6 8	8 0	U	13 0	13 0	3 0	0 3 0 0	3 0 0	Purnea.	22			
						V	12 0	12 0	3 5	0 3 5 0	3 5 0	Darjeeling	23			
13 8	14 8	22 0	11 0	9 0	New 17 0	W	14 0	14 0	2 12	0 2 12 0	2 12 0	Sonthal Parganas.	24			
												C. H. A.				
...	...	...	11 24	11 13	11 7	X	18 0	18 0	2 3	0 2 3 0	2 8 0	Cuttack.	25	
...	...	...	7 0	8 0	9 0	Y	17 0	16 0	2 4	0 2 5 0	3 6 0	Jalisco	26	
...	...	...	12 0	12 0	16 0	Z	10 8	10 8	3 0	0 3 0 0	3 0 0	Angul.	27	
...	...	...	6 9	6 9	8 8	a	19 0	18 0	2 1	0 2 2 0	2 8 0	Puri	28	
...	...	...	7 0	7 8	9 0	b	13 0	13 0	3 0	0 3 0 0	3 0 0	Sambalpur.	29	
												CHOTA NAGPUR				
...	15 0	19 8	...	6 14	8 0	...	12 8	12 8	...	13 1 3 1 8	1 8	Hazaribagh	30			
18 0	18 0	20 0	6 8	6 0	6 0	c	13 0	13 0	3 0	0 3 0 0	3 1 0	Ranchi.	31			
14 10	15 12	27 0	9 0	9 0	11 4	...	15 3	15 3	...	...	...	Palamanu.	32
15 0	15 0	20 0	8 0	8 0	10 8	d	13 0	15 0	2 10	0 2 10 0	2 8 0	Manbhum.	33			
...	...	...	8 0	8 0	12 0	...	13 0	13 0	3 0	0 3 0 0	3 0 0	Singbhum.	34	

BHAGALPUR DIVISION.

CHOTA NAGPUR DIVISION.

- X. In the subdivisions the retail prices of salt per rupee are—Kondrapara 16 seers ; Jaipur 16.
Y. At Bhadrak the retail price of salt is 16 seers per rupee (panga).
Z. In the marts in the interior of the district the retail prices of salt per rupee are—Sankhpur 11 seers (karkatch) ; Phulbani 12 seers.
a. At Khur a the retail price of salt is 18 seers per rupee.
b. At Bargarh the retail price of salt is 11 seers (Bombay).
c. At Gumla the retail price of salt is 10 seers (panga).
d. In the subdivisions the retail prices of salt per rupee are—Gobindapur 16 seers (panga) ; Jhalda 11 seers.

Published for general information.

C. A. OLDHAM,
Director of Agriculture, Bengal.

PRICES-CURRENT (wholesale) of Food-grains, Firewood, &c.

Number.	MARKET.	PRICE PER MAUND											
		RICE (BEST SORT).			COMMON RICE (meta chand).			WHEAT (<i>Triticum sativum</i>).			BARLEY (<i>Hordeum vulgare</i>).		
		Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
		Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
1	Calcutta	6 6 0	6 8 0	6 4 0	4 4 0	4 4 0	5 8 0	3 12 0	3 12 0	3 8 0	2 14 0	2 14 0	2 14 0
2	Burdwan	5 14 0	5 12 0	3 8 0	4 10 0	4 13 0	3 0 0	...	...	...	...	...	...
3	Midnapore	6 4 0	6 4 0	3 12 0	Now 4 7 0	Now 4 0 0	2 13 0	...	...	...	...	...	...
4	Patna	6 0 0	6 0 0	4 0 0	5 6 0	5 3 0	2 8 0	3 5 4	3 5 3	3 9 0	2 15 0	2 15 0	2 15 0
5	Muzaffarpur	6 10 6	6 10 6	5 0 0	5 0 0	5 0 0	3 5 3	3 10 0	3 10 0	3 5 3	2 15 3	2 15 3	2 15 3
6	Bhagalpur	Now 5 4 0	7 1 0	3 15 0	Now 4 3 0	Now 4 8 0	2 12 0	3 8 0	3 8 0	2 14 0	3 3 0	3 2 6	3 2 6
7	Cuttack	5 8 8	5 5 0	5 0 9	3 9 4	3 13 0	2 12 3	3 4 6	3 11 6	3 3 9	...	...	...
8	Bambalpur	4 8 0	4 3 0	4 3 0	3 4 0	3 2 0	2 6 0	3 0 0	3 0 0	3 0 0	...	...	...
9	Ranohi	{ 3 10 6 to 5 0 0	{ 3 10 6 to 5 0 0	{ 4 1 8	3 3 0	3 3 0	2 9 3	{ 3 13 0 to 4 3 3	{ 3 13 0 to 4 3 3	{ 4 0 0 to 5 0 0	{ 2 14 0	{ 2 14 0	{ 2 14 0

CALCUTTA,

The 20th December 1906.

STANDARD SEERS.

JWAR OR CHOLU (<i>Sorghum vulgare</i>).			BAJRA OR CUMBU (<i>Pennisetum typhoides</i>).			MABUA OR RAGI (<i>Echinochloa crusgalli</i>).			GRAM, CHANA, CHOLA, KADALAY, OR SUNAGA (<i>Cicer arislinum</i>).		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
...	3 4 0	3 4 0	4 8 0	...	...	...	3 8 0	3 8 0	3 4 0
...	3 4 0	3 8 0	3 4 0
...	3 4 0 to 3 12 0	3 4 0 to 3 12 0	3 0 0 to 3 8 0
11 0	3 4 0	...	2 12 0	2 8 0	...	...	2 12 0	...	3 5 0	3 6 0	2 10 0
...	3 5 3	2 3 6	3 3 0	3 3 0	2 13 9
...	3 3 0	3 3 0	2 7 0
...	Biri or Kalai.		...
...	3 0 9	3 3 6	2 8 0
...	3 12 0	3 11 6	3 0 0
...	3 10 6	3 10 6	3 1 0

PRICE PER MAUND											
INDIAN-CORN OR MAIZE (See page).			ARHAR DAL OR TUR— CAJIAN PEA (<i>Cajanus indicus</i>).			LYNSED.			MUSTARD AND RAPSEED.		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.	Rs. A. P.
2 14 0	2 14 0	2 10 0	5 8 0	5 8 0	4 12 0	5 6 0	5 4 0	5 6 0	7 0 0	7 0 0	4
—	—	—	5 0 0	5 0 0	4 7 0	—	—	—	8 0 0	7 8 0	5
}	—	—	5 12 0	5 12 0	4 8 0	4 4 0	4 4 0	4 12 0	Black Mustard. { 8 8 0 / 7 8 0 / 6 Rapseed. 6 8 0 / 6 8 0 / 4		
			—	—	—	—	—	—	—	—	—
3 1 0	3 3 0	2 8 0	5 5 8	5 5 8	4 8 6	5 4 0	5 4 0	5 8 0	7 0 0	7 0 0	5
3 8 0	3 3 0	2 1 6	5 5 0	5 5 0	4 0 0	—	—	—	—	—	—
3 5 0	3 5 0	1 15 6	5 12 0	5 12 0	4 8 0	5 0 0	5 10 0	4 9 6	Mustard. { 5 8 0 / 5 12 0 / 5 Rapseed. 7 8 0 / ... / 8		
—	—	—	3 9 4	3 9 0	2 12 3	—	—	—	6 4 0	6 4 0	5
—	—	—	5 8 0	5 4 0	4 0 0	—	—	—	5 4 0	5 8 0	4
—	—	—	6 2 6	6 10 6	6 10 6	5 0 0	5 0 0	5 0 0	{ 6 8 6 to 6 10 6 } 6 10 6 { 5 5		

STANDARD SEERS.

TEL OR JINJH SEED.			SUGAR (RAW).			COTTON (CLEANED).			JUTE		
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.	R. A. P.
8 0	6 12 0	4 8 0	4 4 0	6 12 0	5 4 0	19 8 0	19 8 0	17 0 0	10 12 0	10 12 0	7 0 0
—	—	—	5 0 0	5 0 0	5 4 0	...	...	21 1 0	...	...	...
—	—	—	5 0 0	5 0 0	7 0 0	20 0 0 to 24 0 0	20 0 0 to 24 0 0	20 0 0 to 25 0 0	—	...	...
—	—	—	—	—	—						
8 0	7 0 0	6 14 0	4 11 8	4 4 0	4 2 0	17 8 0	17 0 0	18 0 0	7 0 0	7 0 0	7 0 0
—	...	...	4 0 0	4 0 0	4 7 0	—	...	—	...	...	—
—	...	...	4 0 0	4 8 0	4 8 0	20 0 0	20 0 0	21 0 0	...	—	—
7 0	5 11 6	5 5 3	4 0 0	3 10 0	6 8 0	20 5 0	20 5 0	22 13 0	...	—	—
8 0	5 8 0	6 0 0	6 0 0	6 0 0	5 4 0	—	...	—	5 4 0	6 4 0	6 0 0
—	—	—	5 11 8	5 11 6	5 11 3	22 12 0	22 12 0	24 10 0	...	—	—

PRICE PER MAUND OF 40 STANDARD SEERS.						HIDES (COW).			GRASS.		
GHI (CLARIFIED BUTTER).			TOBACCO LEAF.								
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.
Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.	Ra. A. P.
45 0 0	40 0 0	39 0 0	8 8 0	8 5 0	8 0 0	Per 100 pieces.			1 4 0	1 4 0	2 0
42 0 0	42 0 0	36 0 0	...	...	...	Uncleaned per piece.			...	...	...
			Madhukhali.			2 12 0	2 12 0	2 12 0	}	}	}
			7 0 0	7 0 0	6 0 0	to	to	to			
						3 12 0	3 12 0	3 12 0			
43 0 0	43 0 0	38 8 0	Pulka.			Cleaned per piece.			...	...	...
			9 8 0	9 0 0	8 8 0	3 0 0	3 0 0	3 0 0	}	}	}
						to	to	to			
						4 0 0	4 0 0	4 0 0			
38 0 0	38 0 0	36 0 0	2 8 0	2 8 0	3 8 0	...	...	...	0 4 0	0 4 0	...
40 0 0	40 0 0	35 9 0	10 0 0	10 0 0	8 0 0	...	...	...	...	...	...
41 12 0	40 10 0	40 0 0	6 6 4	6 6 4	6 0 0	...	...	...	...	...	...
38 1 6	38 1 6	38 1 6	6 1 6	6 1 6	6 1 6	Per maund.			0 7 0	0 7 0	0 7
40 0 0	40 0 0	36 4 0	15 0 0	16 0 0	16 0 0	Per maund.			...	...	...
40 0 0	37 8 0	38 11 0	}	}	}	Per piece.			}	}	}
42 10 0	40 0 0	37 0 0				2 0 0	2 0 0	2 0 0			

undermentioned Marks of Bengal on the 15th December 1906.

STRAW.			JUAB STALKS.			PRICE PER MAUND OF 40 STANDARD SHEELS.									MARKS.		
						IRON.			FIREWOOD.			SALT.					
Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.	Present return.	Next preceding return.	Corresponding return of last year.			
A. P.	Rs. A. P.	P.	Rs. A. P.	P.		Rs. A. P.	P.		Rs. A. P.	P.		Rs. A. P.	P.		Rs. A. P.	P.	
14 0	0 14 0		1 0 0	6 2 0	6 2 0	5 12 0	0 9 0	0 9 0	0 9 0	Panga.		
6 6	0 8 0		0 6 6	0 8 0	0 8 0	0 5 3	Karkatch.		
															Panga.		
															Crushed.		
8 0	0 8 0		0 8 0	2 8 0	2 8 0	2 8 0	0 4 0	0 4 0	0 4 0	Panga.		
									4 8 0	4 8 0	4 0 0				Crushed.		
															Panga.		
...	4 10 0	4 10 0	4 0 0	0 6 0	0 6 0	0 6 0	Panga.		
...	8 0 0	8 0 0	5 11 6	0 5 3	0 5 3	0 4 0	Panga.		
...	5 0 0	5 0 0	5 0 0	0 5 0	0 5 0	0 5 0	Panga.		
9 0	0 9 0		0 8 0	4 12 0	4 12 0	4 2 0	0 5 0	0 5 0	0 5 0	Karkatch.		
...	0 3 0	0 4 0	0 4 0	Karkatch.		
10 6	1 0 0		0 8 0	5 11 6	5 11 6	5 0 0	0 6 0	0 6 0	0 6 0	Panga.		
															Panga.		
															Panga.		
															Panga.		
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C. A. OLDHAM,
Director of Agriculture, Bengal

Imports of Principal Articles into the Calcutta Trade Block

Where imported	FOOD-GRAINS								FIBROUS PRODUCTS		OILSEEDS	
	Rice and paddy			Wheat	Wheat flour	Gram and pulse	Other food-grains	Total	Jute, raw	Gunny bag†	Linseed	Mustard seed
	Rice	Paddy*	Total (in rice)									
BENGAL												
	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	No	Mds	Mds
Burdwan	573,898	246,334	820,232	1,207	688	17,064	851	547,070	4,833	180,497	2,922	3,321
Birbhum	450,738	6,906	457,644	6	17	1,074	718	454,708	.....	19,076	2,046	2,070
Bankura	163,796	64,155	227,951	.....	.....	13	.....	194,905	.....	15,050	.....	.....
Midnapore	954,335	208,051	1,162,386	786	.....	21,393	16	1,144,504	7,147	84,876	5,695	1,302
Hoochly	477,143	123,789	600,932	2,019	57	15,583	1,137	577,075	158,150	17,833,348	12,093	1,120
24 Parganas	987,894	50,023	1,037,917	53	.....	8,285	.....	977,208	985,683	56,510,377	5,296	237
Nadia	27,381	2,711	30,092	10,264	2	170,292	18,094	224,727	225,110	111,363	99,729	2,808
Murshidabad	67,594	2,303	69,897	10,542	573	27,514	2,817	110,536	94,423	31,435	13,940	22
Jessore	756	4,530	5,286	251	.....	32,303	806	36,560	90,894	38,635	16,217	683
Khulna	1,331	24,000	25,331	.....	119	3,263	.....	19,612	176,090	142,835	2,141	.....
Total Bengal	3,455,903	797,820	4,253,723	25,123	1,291	297,865	21,519	4,550,043	1,742,419	76,657,611	100,936	13,082
BIHAR												
	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	No	Mds	Mds
Patna	7,016	38	7,054	2	.....	232,921	69,443	280,364	263	4,905	231,544	24,944
Gaya	27,061	.....	27,061	774	.....	199,767	6,725	206,492	89	44,135	84,497	4,273
Bh. habad	18,315	.....	18,315	6,874	766	330,631	2,193	332,824	.....	1,576	78,737	6,881
Saran	832	.....	832	151	.....	6,067	5,959	12,026	63	14,440	95,309	11,523
Chamraran	916	249	1,165	.....	.....	4,049	61,705	65,754	1,560	3,326	121,203	22,972
Munshiganj	485	.....	485	.....	.....	1,989	19,721	21,710	584	2,100	240,055	9,015
Darbhanga	13	.....	13	.....	.....	4,560	8,027	12,587	781	2,100	243,727	32,796
Monghyr	1,366	.....	1,366	21,422	9	167,783	7,360	197,950	.....	3,470	193,494	59,901
Mhaga pur	6,152	.....	6,152	6,344	.....	11,392	40,831	52,223	7,893	6,020	86,052	42,085
Purnea	280	.....	280	661	.....	15,343	264	16,607	539,616	123,583	6,605	8,070
North Parganas	2,405	.....	2,405	17,010	.....	19,389	11,443	30,832	32,831	10,440	6,692	12,311
Darjeeling	.....	1	1	.....	.....	.....	.....	.....	6,692	24,678	18	.....
Cooch Behar	13	.....	13	.....	.....	.....	.....	.....	13	840	.....	.....
Total Bihar	71,403	293	71,696	43,829	775	992,627	189,763	1,202,490	686,330	254,240	1,417,333	236,099
ORISSA												
	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	No	Mds	Mds
Cuttack	96,581	52,986	149,567	.....	.....	3,640	.....	132,646	8,009	6,938	.....	.....
Balasore	614,059	445,454	1,059,513	523	.....	6,036	.....	620,576	60,208	44,172	1,463	771
Puri	146,486	27,447	173,933	.....	.....	.....	.....	162,040	.....	6,685	.....	.....
Bambalpur	237,315	1,294	238,609	.....	.....	155	47	238,319	.....	19,446	1,104	773
Mourbhaj State	44,336	8,326	52,662	.....	.....	231	36	49,707	.....	1,435	.....	80
Total Orissa	932,377	633,497	1,565,874	523	.....	10,071	63	1,232,965	68,659	60,302	2,607	1,430
CHOTA NAGPUR												
	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	No	Mds	Mds
Hazaribagh	4,400	.....	4,400	.....	.....	343	.....	4,808	.....	980	1,002	.....
Palamanu	239	.....	239	.....	.....	.....	.....	239	.....	31,853	23,072	226
Bokaro	68,830	14,496	83,326	.....	259	.....	.....	78,138	.....	3,640	546	593
Singbhum	206,927	10,749	217,676	.....	.....	204	.....	216,646	.....	11,236	1,966	216
Gogpur (Tributary State)	885	.....	885	.....	.....	.....	.....	885	.....	455	.....	.....
Total Chota Nagpur	280,387	31,245	311,632	.....	259	619	6	300,779	.....	45,265	25,585	1,637
Total of the Provinces under the Lieutenant-Governor of Bengal.	4,746,610	1,363,265	6,109,875	79,473	2,326	1,802,103	211,371	7,102,200	2,497,438	77,026,618	1,600,702	232,438
OTHER PROVINCES AND PLACES												
	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	No	Mds	Mds
Burma	2,522,759	179,425	2,702,184	781	467	25,584	6,646	2,608,318	.....	14,350	.....	183,180
R B and Assam	122,257	338	122,595	2,318	64	32,284	2,275	124,834	4,065,859	986,090	59,116	607,025
U P of Agra and Oudh	30,264	889	31,153	1,656,817	43,835	388,764	28,656	1,747,747	8,180	7,315	646,731	290,255
Punjab	39,47	.....	39,47	349,778	52,274	208,654	19,116	740,749	.....	18,790	672	258
Sind and British Baluchistan	26,471	6,944	33,415	.....	608	.....	.....	31,469	.....	1,000	.....	.....
Central Provinces and Berar	148,62	50,655	199,277	333,091	5	370,018	834	778,069	771	18,135	78,835	4,771
Bombay	145,800	.....	145,800	.....	.....	3	203	146,006	.....	.....	.....	23,245
Madras	52,702	80,036	132,738	.....	180	64,065	174	167,143	92	5,470	61	9,013
Rajputana and Central India	4,641	.....	4,641	2,537	.....	1,213	.....	5,854	.....	525	19,613	76,596
Port Blair	.....	.....	.....	.....	.....	.....	.....	.....	.....	100	.....	.....
GRAND TOTAL	7,833,673	1,682,877	9,516,550	3,724,435	79,524	2,613,047	209,675	14,071,676	7,445,349	78,076,103	2,303,720	1,706,714
1905	6,177,147	730,586	6,907,733	4,720,307	85,977	3,435,725	239,011	15,088,571	6,009,419	49,434,365	2,339,370	2,064,888
1906	6,346,325	1,036,492	7,382,817	9,676,099	80,800	3,723,153	194,413	18,834,224	6,795,621	78,869,878	6,723,877	2,807,133

* One muid of paddy is equivalent to 24 seers of rice
† Including gunny-cloth, 2 yards = 1 bag

No. II

Statement of the Routes by which the Articles enumerated in Table No I were imported
into the Calcutta Trade Block in the six months of April to September 1906

ROUTE	FOOD-GRAINS						FIBROUS PRODUCTS		OILSEEDS	
	Rice	Paddy	Wheat	Wheat flour	Gram and pulse	Other food-grains	Jute, raw	Gunny-bags*	Linseed	Mustard seed
	Mds	Mds	Mds	Mds	Mds	Mds	Mds	No	Mds	Mds
By boat	1,507,002	106,633	23,376	88	209,303	8,334	1,470,219	71,464,000	95,285	17,753
.. river steamer ...	115,080	10,750	4,234	36	51,344	15,300	1,000,973	210,240	15,733	170,305
.. rail { E. I. Railway	533,438	227,733	2,065,754	77,053	1,059,506	223,423	711,600	773,300	2,007,110	1,470,234
.. rail { B. B. S. Railway (including B. O. Railway)	200,208	495	1,532	730	123,741	15,373	2,954,750	2,000,540	103,470	2,705
.. rail { A.-B. Railway	17	4	.....	.....	.....	.....	23,427	99,715	215	.....
.. rail { B.-N. Railway	1,090,570	215,903	222,674	155	212,905	1,009	22,335	125,000	79,758	6,005
.. rail { Bombay Railways	...	.....	.....	.....	105,025	.....	.....	1,015	253	.....
.. rail { Howrah-Amra and Howrah-Sheakhala Light Railways†	2,448	212	.....	1	25	.....	5,400	20,685	100	.....
.. road	975,129	54,549	4	.....	2,608	.....	175,593	2,420,223	608	105
.. sea	2,610,373	200,608	721	575	80,226	6,890	70,207	29,225	475	21,742
.. Total { 1906 ...	7,823,973	1,633,877	2,224,423	79,528	2,512,607	229,375	7,465,340	78,076,163	2,223,720	1,706,714
.. Total { 1905 ...	6,177,167	736,686	4,720,207	55,977	2,435,725	220,011	5,630,919	2,424,265	2,220,270	2,064,880
.. Total { 1904 ...	4,240,225	1,020,423	2,076,099	50,990	3,722,155	194,413	9,795,021	14,859,973	6,725,577	2,507,123

ROUTE	Tea, Indian	Cotton, raw	Silk, raw	Coal and coke	Indigo	SUGAR		TOBACCO	
						Refined	Unrefined	Unmanufactured	Manufactured
	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds
By boat	3	17,238	9	24,175	.....	4,067	121,915	47,370	2,700
.. river steamer ...	604,001	63,420	2,241	50,227	.....	72	1,444	10,220	2,105
.. rail { E. I. Railway	1,117	121,264	576	57,245,755	26	2,203	19,902	21,000	6,270
.. rail { B. B. S. Railway (including B. O. Railway)	290,703	11,023	4,445	900	.....	202	10,900	220,221	.....
.. rail { A.-B. Railway	79,142	11,111	.....	.....	.....	.....	.....	120	4
.. rail { B.-N. Railway	670	2,917	.....	19,125,754	.....	.....	150	228	1,401
.. rail { Bombay Railways	.....	96,683	.....	.....	.....	.....	.....	258	.....
.. rail { Howrah-Amra and Howrah-Sheakhala Light Railways†	.....	.....	.....	.....	.....	.....	23	.....	.....
.. road ... ..	.....	2,474	.....	45,840	.....	69,970	40,389	12,170	6,644
.. sea	5,011	74,585	17	.....	.....	110,597	.....	1,953	1,000
.. Total { 1906 ...	986,447	209,279	7,909	76,531,750	26	102,981	202,729	237,140	20,204
.. Total { 1905 ...	1,027,105	212,619	8,870	71,919,065	204	167,004	202,028	224,405	22,025
.. Total { 1904 ...	1,008,803	204,547	7,245	63,225,275	1,820	126,744	211,405	417,213	20,441

* Including gunny-cloth, 2 yards = 1 bag

† Trade carried by these Railways was not registered previous to April 1904.

No III

Imports of certain Articles into Calcutta by Sea (Foreign and Coastwise) in the six months of April to September 1906.

	COTTON PIECE-GOODS		COTTON YARN		Salt	Kerosene oil
	European	Indian	European	Indian		
From Foreign Countries—	Rs.	Rs.	Mds	Mds	Mds	Mds
United Kingdom	8,59,00,128	...	89,481	...	3,517,839	...
Other countries	54,30,564	...	2,312	...	2,647,616	...
Total	9,14,00,692	...	92,793	...	6,165,455	...
Coastwise—						
Bombay	1,01,776	27,09,005	...	57,363	375,993	...
Gond and British Baluchistan	2,538	...	...	...	...	...
Madras	761	4,40,538	...	...	...	...
Other ports in Madras	...	2,740	...	...	...	...
Alleppey	...	...	...	...	...	...
Pondichery	713	...	...	72	...	...
Burma	26,482	20,633	...	...	...	1,314,495
Other ports	...	...	...	...	...	...
Total	1,42,273	31,73,914	...	58,306	375,993	1,314,495
Total	9,15,42,965	31,73,914	92,793	58,306	6,541,448	2,128,990
1905	9,71,08,304	31,80,101	73,773	59,046	6,540,138	2,129,530
1904	9,68,16,033	30,26,477	48,659	77,498	7,084,336	2,016,339

No IV

Exports of Principal Articles from Calcutta by Sea (Coastwise and to Foreign countries) in the six months of April to September 1906

	Rice	Paddy	Total (in rice)	Wheat	Wheat flour	Gram and pulse	Other food- grains	Total	Jute, raw	Gunny- bags	
<i>Coastwise—</i>	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	No	
Bombay ...	84,841	.....	84,841	119	.....	584	184	85,000	20	8,080,180
Bind and British Baluchistan ...	799	.....	799	.....	.....	.....	.....	799	.....	3,415,800
Madras ...	630	.....	630	484	11,960	91,080	7,405	111,498	.....	708,300
Other ports in Madras ...	139,474	905	140,040	.....	7,800	20,143	.....	167,573	.....	1,483,654
Kattywar ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Pondichery ...	.....	.....	.....	.....	1,915	1,035	.....	2,950	.....	93,300
Goa ...	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Alleppey ...	3,583	.....	3,583	.....	.....	.....	.....	3,583	.....	18,500
Burma ...	18,067	.....	18,067	1,322	146,169	181,835	10,488	297,971	325	11,887,910
Other Indian ports ...	9,618	.....	9,618	244	7,446	6,290	30	23,037	1	106,940
Total ...	230,951	905	237,517	2,109	174,570	242,485	18,049	665,080	246	25,761,983	
<i>To Foreign coun- tries—</i>											
United Kingdom	225,006	4	225,006	199,474	.....	185,549	99	840,130	1,861,808	20,408,830
Other countries	2,482,374	13	2,482,382	28,508	34,053	16,552	29,298	2,664,790	2,643,147	272,803,884	
Total ...	2,647,380	17	2,647,390	167,982	34,053	336,101	29,394	3,504,920	4,403,619	298,909,664	
Total ...	1906 ...	2,574,831	923	2,574,907	180,091	218,983	578,586	47,443	3,869,950	4,408,896	324,671,647
1905 ...	5,617,047	44,980	5,655,158	2,544,465	240,183	1,540,977	93,537	10,088,330	4,154,038	311,062,602	
1904 ...	3,929,808	3,347	3,931,209	7,261,873	261,016	3,066,840	63,927	13,868,663	3,651,059	279,782,071	

								SUGAR		TOBACCO	
	Linseed	Mustard seed	Tea, Indian	Cotton, raw	Silk, raw	Coal and coke	Indigo	Re- fined	Un- refined	Un- manu- factured	Manu- factured
<i>Coastwise—</i>	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds	Mds
Bombay ...	...	...	14,435	661	35	15,388,042	24	5,480	...	...	68
Bind and British Baluchistan ...	...	...	570	...	...	7,083,634	...	...	...	1,077	350
Madras ...	...	...	742	...	...	2,393,081	...	1,264	11	...	59
Other ports in Madras ...	...	8,990	246	...	...	1,542,761	...	13	...	...	307
Kattywar ...	...	...	8	...	...	147,136	...	...	...	...	...
Pondichery ...	...	...	...	...	...	103,771	...	...	...	...	...
Goa ...	...	...	...	...	...	174,987	...	...	...	...	...
Alleppey ...	...	...	...	...	...	82	...	...	...	...	6
Burma ...	66	...	3,771	680	74	5,733,240	54	7,744	7,684	65,421	1,734
Other Indian ports ...	10	8	3	8	...	140,210	...	13,483	40	3,336	48
Total ...	96	9,007	19,769	1,389	99	33,005,960	78	25,295	7,744	69,743	2,061
<i>To Foreign coun- tries—</i>											
United Kingdom	1,163,414	70,769	643,186	14,716	1,700	163	798	136	...	20	91
Other countries	873,803	87,616	240,032	282,109	6,323	14,635,639	2,718	5,869	68	17,987	305
Total ...	2,036,279	158,385	883,218	286,825	8,023	14,635,798	3,516	5,997	68	17,966	396
1906 ...	2,036,876	167,363	902,987	298,114	8,127	47,631,701	3,594	34,293	7,813	87,699	2,447
1905 ...	2,123,423	149,768	686,665	260,689	6,917	42,173,782	7,297	23,690	8,061	181,408	2,008
1904 ...	5,696,053	670,836	987,490	142,891	3,793	35,197,515	12,360	18,936	9,373	160,694	4,804

No V

Exports of certain Articles from the Calcutta Trade Block by Rail, Road, River, Canal and Sea (coastwise) in the six months of April to September 1906

	COTTON PIECE-GOODS ¹		COTTON YARN		Salt	KEROSENE OIL		Gunny-bags ²
	European	Indian	European	Indian		From Calcutta	From Budget	
BUREAU	Rs	Rs	Mds	Mds	Mds	Mds	Mds	No
Bardwan	14,57,323	1,03,233	1,989	2,301	276,433	2,307	47,360	444,330
Birbhum	16,98,678	23,142	594	6,295	99,533	80	18,693	242,760
Bankura	3,35,467	4,133	5,200	42,833	5	5	1,051	162,890
Midnapore	15,09,185	2,12,755	4,509	7,138	271,692	742	10,921	178,991
Hooghly	10,38,662	2,01,896	2,980	329	105,096	25,537	21,323	105,160
24-Parganas	13,69,673	2,62,904	2,133	331	113,118	70,653	360,545	181,158
Calcutta	19,72,638	39,028	6,658	2,945	185,648	5,185	22,134	86,646
Nadia	8,48,347	66,932	1,119	1,088	80,102	1,583	17,088	30,675
Marshallabad	5,63,632	1,95,256	2,656	1,727	97,405	17,040	5,015	6,096
Jessore	4,31,345	1,20,409	700	686	71,864	25,545		
Khulna								
Total Bengal	1,07,24,733	12,42,760	24,883	27,090	1,366,993	154,976	601,637	1,734,132
BIHAR								
Patna	15,45,460	13,914	2,094	4,731	123,931	184	86,938	707,321
Gaya	15,75,633	11,722	912	9,475	120,094	70	27,946	284,235
Shahabad	16,31,923	6,867	236	2,913	95,116	118	21,073	284,235
Baran	17,64,354	29,603	685	1,295	132,120	66	16,610	150,865
Champanan	22,87,589	18,912	199	1,098	139,083	147	25,370	183,160
Chhapra	17,71,718	17,198	91	1,327	179,894	218	41,600	108,835
Muzaffarpur	20,51,478	11,081	71	4,395	177,740	126	45,708	233,610
Darbhanga	10,61,036	6,426	603	5,289	120,430	313	35,766	332,818
Monohyr	17,63,388	45,775	632	2,533	168,224	132	36,008	231,435
Bhagalpur	16,55,224	10,878	346	4,088	196,960	1,592	39,746	72,520
Purnea	10,33,309	4,172	1,177	6,431	126,261	115	51,365	121,136
Banthal Pargana	6,93,372	26,915	131	2,192	41,879	212	13,781	26,422
Darjeeling	2,64,711	2,487	184	184	17,979	59	536	8,390
Oodh Behar								
Total Bihar	1,53,05,113	2,06,828	7,687	49,301	1,630,309	3,863	442,114	2,906,191
ORISSA								
Cuttack	2,75,809	19,125	.....	10,855	6,159	80	890	187,005
Balasore	3,15,538	4,106	1,628	23,046	197,349	79	11,712	420,250
Puri	62,102	1,233	.....	73	2	163	.....	58,536
Bambalpur	1,61,812	2,046	8	890	11,799	97	272	181,370
Mourbhansj State	44,708	.....	.....	24	7,177	13	.....	13,335
Total Orissa	9,02,979	26,530	1,636	34,307	222,490	433	12,873	830,776
CHOTA NAGPUR								
Hasanbagh	4,16,638	5,810	3	2,095	50,196	110	2,734	3,990
Palamu	3,21,766	4,655	3	327	26,444	2	3,038	10,906
Manbhum	10,98,918	10,820	134	11,584	137,315	1,439	16,969	117,705
Suckbham	1,64,876	2,147	.....	661	50,680	26	30	170,305
Gangpur (Tributary State)	40,775	.....	.....	44	16,370	65	11	8,426
Total Chota Nagpur	20,36,963	26,963	130	14,701	210,297	1,702	23,711	233,830
Total Exports to the Provinces and the Lieutenant-Governor of Bengal.	2,30,31,788	16,05,026	24,330	135,489	2,539,188	100,168	1,075,034	5,794,476
OTHER PROVINCES AND PLACES								
Ruma	4,76,706	69,151	2,496	24,873	54	.....	321	11,867,816
E Band Assam	2,00,83,406	6,33,109	63,782	14,469	1,647,781	63,614	696,169	790,089
U P of Agra and Oudh	1,96,61,805	2,20,086	5,932	2,301	234,517	3,315	408,138	2,103,415
Punjab	41,08,808	91,511	3,421	109	44	234	17,733	2,687,196
Sind and British Baluchistan	14,027	1,586	30	25	.....	.....	.....	3,442,685
Central Provinces and Berar	6,55,924	16,808	100	765	2,797	467	11,836	441,876
Bombay	1,03,259	19,112	32	27	.....	.....	.....	10,817,340
Madras	6,15,005	3,688	36	7,688	.....	108	5,923	2,411,124
Rajputana and Central India	8,35,640	6,879	327	13	.....	134	6,696	71,400
Nizam's Territory	29,005	913	.....	181	.....	.....	.....	58,940
Mysore	.....	51	.....	30	.....	.....	.....	2,040
Alleppey	.....	.....	.....	.....	.....	.....	.....	13,506
Pondicherry	.....	.....	.....	.....	.....	.....	.....	93,200
Port Blair	40,905	230	2	667	.....	.....	191	.....
GRAND TOTAL	7,04,32,237	20,65,542	1,13,550	187,196	5,624,361	278,024	2,121,942	40,211,761
1906	6,08,05,696	15,09,767	1,21,705	174,139	5,574,817	203,060	2,031,467	47,040,561
1906	7,25,05,912	6,94,490	1,15,087	180,668	5,510,963	292,891	2,624,060	54,067,636

* The value rates are fixed quarterly and the monthly valuation is made at the value rates of the preceding quarter
¹ Represents the trade registered at the traffic-registering stations only
² Including gunny-cloth, 2 yards = 1 bag

No VI

Statement of the Routes by which the Articles enumerated in Table No V were exported from the Calcutta Trade Block in the six months of April to September 1906

	COTTON PIECE-GOODS*		COTTON YARN		Salt	KEROSENE OIL	
	European	Indian	European	Indian		From Calcutta	From Budge-Budge
	Rs	Rs	Mds	Mds	Mds	Mds	Mds
By boat	8,30,000	2,77,900	3,823	.....	946,773	110,206	2,182
.. river steamer	1,08,39,027	2,18,818	51,705	2,991	1,055,303	10,635	481,781
.. rail { N I Railway	4,36,63,769	5,69,881	19,230	79,706	2,009,161	13,230	963,124
.. rail { B & S Railway (including B O Railway)	1,53,96,995	6,29,227	24,149	19,186	1,021,961	19,097	645,623
.. rail { A-B Railway	12,62,582	1,66,516	6,083	2,796	72,712	1,265	1,561
.. rail { B-N Railway	20,19,165	53,650	46	46,392	413,294	1,396	17,063
.. rail { N.W Railway	4,94,227	1,574	1,723	1	.....	153	.....
.. rail { Bombay Railways	12,20,031	18,028	242	2,234	.....	30	20
.. rail { Howrah-Amra and Howrah-Sheakhala Light Railways;	4,07,117	.....	1,220	.....	7,655	990	.....
.. road	14,01,068	4,08,603	2,607	2	44,696	68,445	2,430
.. sea	9,57,666	60,000	5,464	41,712	123,534	.....	19,337
Total { 1906 .. 7,04,22,207 26,65,942 113,150 1,67,196 4,634,361 229,021 2,121,942							
.. 1905 .. 6,08,08,696 15,09,767 121,706 1,76,189 4,578,817 203,606 2,031,457							
.. 1904 .. 7,26,06,912 5,96,496 116,687 1,69,565 5,220,952 292,891 2,684,000							

* The value rates are fixed quarterly and the monthly valuation is made at the value rates of the preceding quarter
† Including gunny-cloth, 2 yards = 1 bag
‡ Trade carried by these railways was not registered previous to April 1906

December 22, 1906.

F. NORR-PATON,
Director-General of Commercial Intelligence

T. W. RICHARDSON,
Offg. Secretary to the Government of Bengal

Weekly Return of Traffic Receipts on Indian Railways.

ASSAM-BENGAL RAILWAY.

Approximate Return of traffic for the week ended 8th December 1906 on 783 miles open for all descriptions of traffic and an additional 3 miles for goods traffic only.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	No. of passengers.	Coaching receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs. A. P.	Mds. c.	Rs. A. P.	Rs. A. P.	Rs. A. P.			
Total traffic for the week	84,473	26,350 0 0	2,30,410 0	36,708 0 0	5,618 0 0	81,574 0 0	14,314	16,955	31,067
Or per mile of railway	70'23	49'20	276'07	51'50	7'22	105'09	16'28	21'00	40'37
For previous 23 weeks of half-year	1,065,055	6,54,840 0 0	87,63,199 0	12,19,495 0 0	1,41,083 0 0	20,14,368 0 0	253,546	422,110	685,656
Total for 23 weeks*	1,120,528	6,91,090 0 0	90,53,838 0	12,53,201 0 0	1,46,651 0 0	20,95,042 0 0	277,600	430,063	716,723
COMPARISONS.									
Total for corresponding week of previous year	67,579	20,463 0 0	2,12,134 0	34,016 0 0	4,392 0 0	68,911 0 0	10,343	15,021	25,364
Per mile of railway corresponding week of previous year	64'56	41'25	234'78	45'97	5'64	93'16	14'03	20'60	34'53
Total to corresponding date of previous year	929,634	5,94,429 0 0	61,23,111 0	9,55,031 0 0	1,24,332 0 0	16,74,832 0 0	240,235	418,055	658,840

* Includes Noakhali Railway earnings Rs. 35,894 and train-mileage 19,644.

FINANCIAL YEAR.

Approximate Statement of Gross Receipts of the Assam-Bengal Railway.

RECEIPTS FOR WEEK ENDING 8TH DECEMBER 1906.			RECEIPTS FOR WEEK ENDING 9TH DECEMBER 1905.			TOTAL RECEIPTS FROM 1ST APRIL 1905 TO 8TH DECEMBER 1906.			TOTAL RECEIPTS FROM 1ST APRIL 1905 TO 9TH DECEMBER 1905.			Total increase in 1906.	Total decrease in 1906.
Mean-mileage worked.	Receipts.	Per mile worked.	Mean-mileage worked.	Receipts.	Per mile worked.	Mean-mileage worked.	Total receipts.	Per mile worked per week.	Mean-mileage worked.	Total receipts.	Per mile worked per week.		
	Rs.	Rs.		Rs.	Rs.		Rs.			Rs.		Rs.	
771	81,574	105'09	740	68,911	93'16	771	36,27,775	...	740	23,75,810	...	6,51,965	...

BENGAL AND NORTH-WESTERN RAILWAY.

Approximate Return of Traffic for the week ending 8th December 1906 on 1,548 miles open.

	COACHING TRAFFIC.		MERCHANDISE AND MINERAL TRAFFIC.		Other earnings (estimated), including steam-boat.	Total earnings.	TRAFFIC TRAIN-MILES RUN.		
	No. of passengers.	Receipts.	Weight carried.	Receipts.			Coaching.	Merchandise.	Total.
		Rs.	Mds.	Rs.	Rs.	Rs.			
Total traffic for the week on 1,548 miles open	266,300	(a) 1,19,460	10,34,670	(b) 1,63,440	(c) 22,630	9,06,450	40,258	(d) 48,684	86,162
Or per mile of railway	173'03	77'19	661'93	105'63	14'55	197'23	...	...	...
For previous 23 weeks of half-year (e)	2,627,673	25,21,040	1,80,11,823	24,04,636	4,21,773	53,47,440	1,062,541	837,185	1,899,026
Total for 23 weeks	2,653,968	26,40,530	1,89,36,403	25,05,076	4,44,303	58,62,899	1,132,099	826,069	2,015,118
COMPARISONS.									
Total for corresponding week of previous year on 1,407 miles open	233,868	1,20,608	8,56,373	1,06,118	16,463	2,43,183	44,700	(f) 73,169	31,627
Or per mile of railway corresponding week of previous year	173'13	85'23	603'76	71'05	11'32	165'00	...	...	...
Total to corresponding date of previous year	2,963,613	24,41,123	1,74,27,716	20,35,463	4,02,864	48,79,559	1,079,633	1,779,073	1,659,263
Analysis per Coaching, Goods and Total train-mile respectively during the week	...	3'43	...	3'24	23	3'11	...	...	...
Ditto for corresponding week of previous year	...	3'49	...	3'03	20	2'56	...	...	...

- (a) Increase in number with decrease in amount is due to shorter road traffic.
 (b) Increase chiefly under foreign inward, grain for Bengal.
 (c) Increase principally under steam-boat.
 (d) Includes 3,510 miles of ballast trains.
 (e) Ditto audited figures up to week ending 27th October 1906.
 (f) Ditto 3,302 miles of ballast trains.



APPENDIX TO

The Calcutta Gazette.

WEDNESDAY, JULY 4, 1906.

NOTICES TO MARINERS.

THE following Notices are published for general information.

CALCUTTA, the 3rd July 1906.

W. A. INGLIS,
Secretary, Marine Department.

EASTERN ARCHIPELAGO—MALACCA STRAIT—PULO PEMANG.

Pulo Rimau light—Temporary alteration.

No. 241 (first publication).—With reference to Notice to Mariners No. 84, dated 3rd March 1905, issued by this office, the British Admiralty has given further notice (No. 548 of 1906) that further information, dated 9th April 1906, has been received from the Harbour Master at Penang that Pulo Rimau light (*red occulting*) will, in consequence of an accident, temporarily show *white* instead of red from the bearing of N. 59° E., through east, to S. 74° E.

Approximate position, lat. 5° 14' N., long. 100° 16½' E.

(Variation 2° Easterly in 1906.)

This Notice temporarily affects the following Admiralty Charts:—Acheh head to Tyingkok bay, No. 2780; Butang group to Pulo Berkala, No. 793; Penang harbour, No. 1366; Malacca strait, No. 1355; also, List of Lights, Part VI, 1906, No. 408; and China Sea Directory, Vol. I, 1896, page 147.

AUSTRALIA SOUTH—PORT ADELAIDE RIVER.

Light beacons under construction.

No. 242 (first publication).—The British Admiralty has given Notice (No. 552 of 1906) that, in connection with the erection of light beacons abreast beacons Nos. 3 to 9 on the north and east sides of the channel, Port Adelaide river, a barge exhibiting an anchor light at night will be moored in the stream during the progress of the work, which will be commenced from No. 9 beacon. A *green fixed* light will be exhibited from each beacon when completed.

Approximate position, No. 9 beacon, lat. 34° 47½' S., long. 138° 31' E.

Further notice will be given when these beacons are completed.

This Notice affects the following Admiralty Chart:—Port Adelaide, No. 1750; also, List of Lights, Part VI, 1906, page 206; and Australia Directory, Vol. I, 1897, page 332.

AUSTRALIA, SOUTH—GULF OF ST. VINCENT.

Port Adelaide river—Extra Beacons placed—Amended Sailing Directions.

No. 243 (first publication).—With reference to Notice to Mariners No. 62, dated 10th February 1906, issued by this office, the Secretary, Marine Board, Port Adelaide, has given further notice (No. 11 of 1906) that eight extra beacons have been placed on the north and east side of the cutting. The beacons are painted black and the lanterns green, from which a green light showing towards the cutting is exhibited; a white light is also exhibited from the back of each lantern showing towards the shore.

All the green light beacons are numbered from the first or seaward beacon with the letter "G" added as follows:—No. 0G, being outside beacon; No. 1G, near the reflecting beacon; No. 2G, opposite the old boat channel. This light indicates the turning point from No. 2 (red) lead towards No. 3. All the others, that is, Nos. 3G to 9G, both inclusive, are placed opposite the corresponding numbers of the white light beacons on the other side of the cutting.

All the single light beacons are placed about 15 feet back from the cutting, and painted red to starboard and black to port. The lights are white to starboard and green to port from seaward.

The red light on the pile beacon south of No. 8 being no longer required will, on and after the 1st June 1906, be discontinued.

In consequence of the above alterations the sailing directions have been amended to read as follows:—

Sailing Directions.

By night.—In approaching the anchorage, vessels of deep draught should not bring the white light on the old structure to bear north of N. E. by E. in order to avoid the four-fathom patch, which bears N. W. half N. from the light on Wonga Shoal; then get No. 1 lead (which consists of two red lights vertical 10 feet apart, and two white lights vertical 11 feet 9 inches apart) in line; keep these in line passing between the occulting light on the red buoy and the outer green light on the north bank, also between the other green lights on the north bank and the white lights on the revetment mound.

Steer on the same line until the two red lights of No. 2 lead are coming on; then steer with them in line until abreast of No. 2G beacon; then direct the course to pass between No. 3 and No. 3G beacons; and so on from beacon to beacon round the point until No. 9 is reached. From a safe distance off No. 9 the lights of No. 10 lead will be seen; keep them in line until the red light is about a quarter of a point open to the right of the white light of No. 11 lead; then gradually alter the course to bring the lights of No. 11 lead in line; keep them in line (a sharp look out being kept for the mooring buoys on the starboard hand) until the lights of No. 12 lead are seen coming into line; proceed as before by altering the course before the lights are on with each other. The same applies in the change from No. 12 to No. 13 lead. When the lights on the wharves are seen opening out off Luff Point, alter the course so as to round the point at a safe distance, and then up the centre of the channel, looking out for the mooring buoys on the starboard hand.

In going outwards the directions are just the opposite to those given for those coming inwards; but in such case, in changing from one lead to another, the course should be gradually altered when abreast of the low (red) beacon of each lead, excepting No. 2 lead. In this case, when abreast of No. 3 beacon, gradually alter the course to a safe distance off No. 2G until the two red lights of No. 2 lead are in line, then proceed outwards with No. 2 lead in line.

By day.—The directions by day are the same as by night, merely substituting the beacons for the lights.

This affects Admiralty Charts 2389A and B, 1750 and 1752.

During the progress of the work at the Light's Passage Harbour Works, masters of vessels exempt from pilotage may, if they so desire, avail themselves of the services of a pilot to assist them in passing such works, either in or out, at one-half the usual rates.

If the usual exemption flag is not hoisted, it will be taken as a signal that a pilot is required. At night if a pilot is required the usual signal for a pilot should be shown.

N.B.—Owing to the nature of the work in progress, this notice may require to be amended from time to time, and therefore should be treated as tentative only.

INDIA, WEST—BOMBAY COAST.

Bombay harbour—Ballard pier—New extension works marked by buoy.

No. 244 (first publication).—The Bombay Government has given notice (No. 65 of 1906) that several blocks of concrete have been washed off the works at the East end of the Ballard Pier Extension somewhat obstructing the passage to the old steps.

2. A small black painted conical Buoy will be moored to mark the end of this obstruction which has a depth on it of 12 feet at Low Water.

3. Vessels approaching this draught should not pass between the Buoy and end of the new Pier Extension works.

This Notice affects Admiralty Chart :—Port of Bombay, No. 655; also West Coast of Hindustan Pilot, 4th edition, 1898, page 201; and Supplement, 1903, page 15.

INDIA, WEST—BOMBAY (GOA) COAST.

Diu lights—Their non-exhibition during certain months.

No. 245 (first publication).—The following Notice to Mariners issued by the Bombay Government (No. 66 of 1906) is republished :—

Information, dated 17th May 1906, has been received from the Captain of the Port that the following lights at Diu, viz., the Red fixed light of the Forte de Mar and the White fixed light on the Castle Culwark foundation, will not be exhibited during the months of June, July and August 1906.

This Notice affects the following Admiralty Charts :—Gulf of Kutch to Visiadrug (plan Diu harbour), No. 2736; Dwarka Point to Diu Head, No. 1420; and Diu Head to Goapnath Point, No. 50; and West Coast of Hindustan Pilot, fourth edition, 1898, page 258, and Supplement 1903, page 16; also Admiralty Light List, Part VI, 1906, Nos. 217 and 218, and List of Light-houses and Light-vessels in British India, Nos. 217 and 218.

The 28th June 1906.

BAY OF BENGAL.

Caution—Report of floating wreckage.

No. 219 (second publication).—A telegraphic communication has been received from Colombo, dated S.S. *Begonia*, 12th June, stating that a large amount of floating wreckage setting eastward was passed in latitude 14° N., longitude 85° E. Mariners are hereby warned.

The 19th June 1906.

NEW ZEALAND—SOUTH ISLAND.

Taiaroa head—Otago harbour entrance—Fog signal altered.

No. 220 (second publication).—The British Admiralty has given notice (No. 503 of 1906) that on 20th April 1906, the fog gong on Taiaroa head, Otago harbour entrance, would be replaced by a fog explosive, which will give during thick or foggy weather one report every six minutes.

Approximate position, lat. 45° 47' S., long. 170° 45' E.

This Notice affects the following Admiralty Charts :—Otago to Mataura river No. 2533; Ninety Miles beach to Otago, No. 2532; Otago harbour, No. 2411; Also, List of Lights, Part VI, 1906, No. 1677; New Zealand Pilot, 1901, page 293; and Supplement, 1903, page 25.

PACIFIC OCEAN, SOUTH—SOCIETY ISLANDS.

Buoyage unreliable.

No. 221 (second publication).—The British Admiralty has given notice (No. 504 of 1906) that owing to the recent hurricane the buoyage of those islands cannot be depended on.

Approximate position, lat. 17° 0' S., long. 150° 0' W.

This Notice affects the following Admiralty Chart :—Tuamotu or Low Archipelago, No. 767; Also Pacific Islands, vol. III, 1900, page 47; and Supplement 1903, page 4.

EASTERN ARCHIPELAGO—SUMATRA, WEST COAST—KONINGINNE BAY.

Emma haven light—White sector abolished.

No. 222 (second publication).—With reference to Notice to Mariners No. 111, dated 26th March 1906, issued by this office, the British Admiralty has given further notice (No. 505 of 1906) that the white sector in the light (*fixed*) exhibited from the breakwater head, Emma haven, has been abolished, the light now shows *red* from the bearing of North to N. 84° E.

Approximate position, lat. 1° 0' S., long. 100° 22½' E.

(Variation 2° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Ujong Masang to Ujong Indrapura*, No. 709; *Koninginne bay*, No. 212; *Also List of Lights, Part VI*, 1906, No. 466; *China Sea Directory*, vol. I, 1896, page 302; and *Supplement*, 1899, page 21.

CEYLON, WEST COAST—COLOMBO HARBOUR APPROACH.

Nilkete rocks—Wreck of the S. S. "Kasan."

No. 223 (second publication).—The British Admiralty has given notice (No. 508 of 1906) that the wreck of the S.S. *Kasan*, which ran on the Nilkete rocks in the approach to Colombo harbour, forms a prominent object from seaward, and as the vessel is unlikely to disappear quickly she will be useful as a navigational aid for some time.

Approximate position, lat. 6° 41' N., long. 79° 52½' E.

This Notice affects the following Admiralty Chart:—*Ceylon*, No. 813; *Also Bay of Bengal Pilot*, 1901, page 77; and *Bay of Bengal Pilot*, 1898, page 93.

PACIFIC OCEAN—NEW HEBRIDES GROUP.

Malekula island—Rock reported off the south-west coast.

No. 224 (second publication).—The British Admiralty has given notice (No. 509 of 1906) of the existence of a rocky ridge, with a depth of 15 feet over it, off the south-west coast of Malekula island, situated in a position from which Molembi island bears N. 45° E., distant 2 cables, and the south-western extremity of Malekula island S. 52° E.

This ridge, which is about 30 yards long and 10 yards broad, is steep-to, and has depths of 4½ fathoms around it.

Approximate position, lat. 16° 33½' S., long. 167° 27' E.

(Variation 9° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Malo island to Efate island*, No. 1570; *Malekula island*, No. 1579; *plan of Ure on chart No. 500*; *Also Pacific Islands*, vol. II, 1900, page 458.

EASTERN ARCHIPELAGO—CELEBES, WEST COAST—MAKASSAR APPROACH.

Kapoposang—Intended light—Dajang Dajangan—Intended alteration in light.

No. 225 (second publication).—The British Admiralty has given notice (No. 513 of 1906) that about October 1906, a *white flashing light every five seconds*, of the 5th order, elevated 108 feet above high water, and visible in clear weather from a distance of 16 miles, will be established on an iron framework support, 108 feet high and painted white, erected on the western point of Kapoposang island.

Approximate position, lat. 4° 41½' S., long. 118° 56½' E.

Also, that at the same time Dajang Dajangan light will be altered from fixed to a *white flashing light every fifteen seconds*, thus: flash, *five seconds*; eclipse, *ten seconds*; it will be elevated 105 feet above high water, and shown from a support 108 feet high.

Approximate position, lat. 5° 23½' S., long. 119° 11' E.

Further notice will be given when these alterations have been made.

This Notice affects the following Admiralty Charts:—*Strait of Makassar*, No. 2637; *approach to Makassar*, No. 1293; *also List of Lights, Part VI*, 1906, page 93, No. 553; and *Eastern Archipelago, Part II*, 1904, pages 311, 305.

EASTERN ARCHIPELAGO—JAVA, NORTH COAST.

Pamanukan rock buoy—To be replaced by light buoy.

No. 226 (second publication).—The British Admiralty has given notice (No. 514 of 1906) that the black bell-buoy surmounted by a ball, marking Pamanukan rock, will be replaced by a light buoy, painted black, exhibiting a white occulting light every twenty seconds, thus: light, ten seconds; eclipse, ten seconds.

Approximate position, lat. $6^{\circ} 1' S.$, long. $107^{\circ} 52\frac{1}{2}' E.$

Further notice will be given when this alteration is made.

This Notice affects the following Admiralty Chart:—Java, No. 1653; also Eastern Archipelago, Part II, 1904, page 97.

EASTERN ARCHIPELAGO—JAVA, EAST COAST—BALI STRAIT.

Banjuwangi light—Intended alteration.

No. 227 (second publication).—The British Admiralty has given notice (No. 515 of 1906) that it is intended to replace the white fixed light at Banjuwangi by a white flashing light every fifteen seconds, thus:—flash, three seconds; eclipse, twelve seconds. The light will be of the 6th order and produced by acetylene gas.

Approximate position, lat. $8^{\circ} 12\frac{1}{2}' S.$, long. $114^{\circ} 22\frac{3}{4}' E.$

Further notice will be given when this alteration has been made.

This Notice affects the following Admiralty Charts:—Java, eastern portion, No. 1654; plan of Bali strait on chart No. 934; plan of Banjuwangi on chart No. 932; Also List of Lights, Part VI, 1906, No. 508; and Eastern Archipelago, Part II, 1904; page 144.

EASTERN ARCHIPELAGO—BORNEO, SOUTH-EAST COAST.

Pulo Laut strait—Intended light-buoy.

No. 228 (second publication).—The British Admiralty has given notice (No. 516 of 1906) that it is intended to establish a light buoy exhibiting a white occulting light every twenty seconds, thus:—light, ten seconds; eclipse, ten seconds; near Petang Point, in the southern entrance to Pulo Laut strait.

Approximate position, lat. $3^{\circ} 37\frac{1}{2}' S.$, long. $115^{\circ} 57\frac{3}{4}' E.$

Further Notice will be given.

This Notice affects the following Admiralty Chart:—Plan of Pulo Laut strait on chart No. 2662; also Eastern Archipelago, Part II, 1904, page 277.

EASTERN ARCHIPELAGO—JAVA—BALI STRAIT.

Balambangan, south point—Intended light.

No. 229 (second publication).—The British Admiralty has given notice (No. 517 of 1906) that it is intended in November to establish a white flashing light every five seconds on the south coast of Balambangan peninsula; it will be elevated 253 feet above high water, and visible in clear weather from a distance of 22 miles from the bearing of $S. 76^{\circ} W.$, through west and north to $S. 77^{\circ} E.$ The light, which will be of the 4th order and produced by acetylene gas, will be shown from an iron framework support, 69 feet high and painted white.

Approximate position, lat. $8^{\circ} 46\frac{1}{2}' S.$, long. $114^{\circ} 31\frac{1}{2}' E.$

Further notice will be given when received.

(Variation 2° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—Eastern Archipelago, No. 941b; Java island, No. 1654; plan of Bali strait on chart No. 934; also List of Lights, Part VI, 1906, page 87; and Eastern Archipelago, Part II, 1904, page 191.

EASTERN ARCHIPELAGO—JAVA—BALI STRAIT.

Bansering—Intended leading lights.

No. 230 (second publication).—The British Admiralty has given notice (No. 518 of 1906) that it is intended to establish near Bansering two leading lights, one mile apart, in a direction N. 4° E. and S. 4° W. from each other, the northern and high light being white fixed and the low light red fixed, each light being produced by acetylene gas.

Approximate position, high light, lat. 8° 3½' S., long. 114° 25½' E.

Further notice will be given when received.

• (Variation 2° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941b; *Java island*, No. 1654; *plan of Bali strait* on chart No. 934; also *List of Lights*, Part VI, 1906, page 87; and *Eastern Archipelago*, Part II, 1904, page 143.

EASTERN ARCHIPELAGO—BALI ISLAND—BALI STRAIT.

Lichin Point—Intended light buoy in its vicinity.

No. 231 (second publication).—The British Admiralty has given notice (No. 519 of 1906) that it is intended to establish in the vicinity of Lichin Point, Bali strait, a light buoy exhibiting a white occulting light every twenty seconds, thus:—light, ten seconds; eclipse, ten seconds.

Approximate position, lat. 8° 7¼' S., long. 114° 25¾' E.

Further notice will be given when received.

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941b; *Java island*, No. 1654; *plan of Bali strait* on chart No. 934; also *Eastern Archipelago*, Part II, 1904, page 147.

EASTERN ARCHIPELAGO—SUMATRA, NORTH-EAST COAST.

Straits of Durian and Berhala—Intended light buoys.

No. 232 (second publication).—The British Admiralty has given notice (No. 520 of 1906) that it is intended to establish the undermentioned light buoys in the straits of Durian and Berhala in the following positions:—

- (a) STRAIT OF DURIAN—A light buoy, painted white, exhibiting a white occulting light every twenty seconds, thus:—light, ten seconds; eclipse, ten seconds, on the north-eastern side of Richardson reef.

Approximate position, lat. 0° 37¼' N., long. 103° 43' E.

- (b) BERHALA STRAIT—A light buoy, painted in red and black horizontal bands, exhibiting a white occulting light every twenty seconds, thus:—light, ten seconds; eclipse, ten seconds, on the south-eastern side of Speke rock.

Approximate position, lat. 0° 37' S., long. 104° 6½' E.

This Notice affects the following Admiralty Charts:—*Strait of Durian* No. 2402; *channels between Sumatra and Linga*, No. 1789; also *China Sea Directory*, vol. I, 1896, pages 557, 546; and *Supplement*, 1899, page 41.

JAPAN—NAIKAI (INLAND SEA).

Shimonoseki strait—Wreck.

No. 233 (second publication).—The British Admiralty has given notice (No. 525 of 1906) that the wreck of a schooner lies sunk in Shimonoseki strait, in a position from which Manaita light beacon bears N. 87° E., distant 2½ cables, and Konpira hill N. 15° E. A mast was showing about 3 feet above water, but this would probably disappear.

Approximate position, lat. 33° 55' N., long. 130° 53½' E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*Shimonoseki strait*, No. 1578; also *Sailing Directions for Japan*, &c., 1904, page 505.

RED SEA—SUEZ BAY.

Etuleh shoal—Bury replaced by light buoy.

No. 234 (second publication).—With reference to Notice to Mariners No. 183, dated 30th May 1903, issued by this office, the British Admiralty has given further notice (No. 527 of 1906) that the red buoy surmounted by a staff and cage, moored south-eastward of the Etuleh shoal, Suez bay, at distance of $13\frac{1}{2}$ cables N. 64° W. from Kal ah Kebireh central beacon, has been replaced by a light buoy exhibiting a *white fixed light*.

Approximate position, lat. $29^{\circ} 55'$ N., long. $32^{\circ} 30'$ E.

(Variation 34° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Suez bay, No. 734; also Red Sea, &c., Pilot, 1900, page 89; and Supplement, 1904, page 12.

CHINA, EAST COAST—YANG TSE KIANG ESTUARY.

Period of system of light buoys altered.

No. 235 (second publication).—The British Admiralty has given notice (No. 533 of 1906) that the period of system of each light buoy from which an occulting light is exhibited in the Yang tee estuary is now every eight seconds, thus:—light, four seconds; eclipse, four seconds.

This Notice affects the following Admiralty Chart:—Approaches to the Yang tee Kiang, No. 1602; Shanghai to Nanking, No. 2809; also China Sea Directory, vol. III, 1904, pages 402, 408, 409, 413.

KOREA, WEST COAST.

Irikobari somu (Pinnacle island) light—Its amended position.

No. 236 (second publication).—With reference to Notice to Mariners No. 41, dated 24th January 1906, issued by this office, the British Admiralty has given further notice (No. 534 of 1906) that the period of system of Irikobari light (*white flashing*) is fifteen, and not ten seconds as previously stated.

Approximate position, lat. $34^{\circ} 47\frac{1}{2}'$ N., long. $125^{\circ} 47\frac{1}{2}'$ E.

This Notice affects the following Admiralty Charts:—Korean Archipelago No. 104; western coast of Korea, No. 913; S. W. coast of Korea, No. 3365; also List of Lights, Part VI, 1906, No. 922; and Sailing Directions for Japan, etc., 1904, page 74.

PACIFIC OCEAN, SOUTH-WEST—KERMADEC GROUP.

Raoul or Sunday island—Shoals in East anchorage.

No. 237 (second publication).—The British Admiralty has given notice (No. 538 of 1906) that the Navigating Officer's Remark Book, H.M.S. *Prometheus*, 1905, contains the following information respecting the existence of the undermentioned pinnacle rocks in East anchorage of Raoul or Sunday island, situated in the following positions:—

- (1) A rock, with a depth of 2 fathoms over it at low water, $5\frac{1}{2}$ cables N. 87° E. from Rayner Point.
- (2) A rock, with a depth of $2\frac{1}{2}$ fathoms over it at low water, $5\frac{1}{2}$ cables S. 87° E. from Rayner Point.
- (3) A rock, with a depth of 2 fathoms over it at low water, 3 cables S. 67° E. from Rayner Point.
- (4) A rock, with a depth of 2 fathoms over it at low water, 3 cables S. 86° E. from Rayner Point.
- (5) A rock, with a depth of 2 fathoms over it at low water, 3 cables N. 87° E. from Rayner Point.

These rocks appear to be steep-to, having depths of 7, 8, and 9 fathoms around them.

Approximate position, Rayner Point, lat. $29^{\circ} 15\frac{1}{2}'$ S., long. $177^{\circ} 59\frac{1}{2}'$ E.

(Variation 12° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—Raoul or Sunday island, No. 568; also New Zealand Pilot, 1901, page 384; and Supplement, 1903, page 28.

The 23rd June 1906.

INDIA, WEST—BOMBAY COAST.

Bombay harbour—New dock works—Petroleum Jetty.

No. 238 (second publication).—With reference to Notice to Mariners No. 53, dated 10th February 1906, issued by this office, the Bombay Government has given further notice (No. 57 of 1906) that the dam being completed, a wooden pile jetty, called the Petroleum Jetty, 120 feet long, has been constructed on the east face of the dam to accommodate oil steamers visiting the port and replacing the floating pipe line and pontoons, which have now been withdrawn.

2. Two mooring buoys have been laid down north and south of the Petroleum Jetty for the oil steamers.

3. Further, the east face of the dam is being continued in a northerly direction, and the works, as they progress, will be marked by a black can buoy, exhibiting a red light at night. Vessels or boats should not pass to the westward of this buoy.

This Notice affects Admiralty Chart:—Port of Bombay, No. 655; also West Coast of Hindustan Pilot, 4th edition, 1898, page 201, and Supplement, 1903, page 15.

INDIA, WEST—BOMBAY COAST.

Rajpuri Point—Red buoy removed for the south-west monsoon.

No. 239 (second publication).—The Bombay Government has given notice (No. 60 of 1906) that the red buoy on the north side of the "Whale reef" off the Rajpuri Point was removed for the south-west monsoon on the 19th May 1906.

INDIA, WEST—BOMBAY COAST.

Buoys between Alibag and Bhatkal—Dates of removal from their positions.

No. 240 (second publication).—With reference to Notice to Mariners No. 186, dated 26th May 1906, issued by this office, the Bombay Government has given further notice (No. 64 of 1906) that the undermentioned buoys were removed from their positions on the dates noted against each:—

Alibag buoy	...	...	...	17th May 1906.
Ambulgaad Reef buoy	...	...	...	16th " "
Chaldia Rock buoy	...	...	...	15th " "
Malvan Outer Rock buoy	...	...	...	16th " "
Johnstone Castle buoy	...	...	...	17th " "
Vengurla Harbour buoy	...	...	...	20th " "
Malvan Harbour buoy	...	...	...	17th " "
Murdeshwar buoy	...	...	...	13th " "
Bhatkal buoy	...	...	...	17th " "

The 25th June 1906.

BAY OF BENGAL—ORISSA COAST.

Fake Point anchorage—Fairway and Outer spit buoys shifted.

No. 213 (third publication).—With reference to notice to Mariners, No. 189, dated 26th May 1906, issued by this office, the Port Officer, Cuttack and Balasore ports, reports having shifted the Fairway and Outer spit buoys; the former 4½ cables N. 70° E. from its former position, in 27 feet reduced; the latter 5 cables N. 50° E. from its former position, in 20 feet reduced:—

Bearings from buoys.

Fairway buoy	...	{ Flagstaff S. 11° W. Telegraph bungalow—S. 62° W.
Outer spit buoy	...	{ Flagstaff S. 5° 30' W. Telegraph station S. 67° W.

The bearings are magnetic.

AUSTRALIA SOUTH—SPENCER GULF.

Louth bay—A Cheese-shaped buoy placed.

No. 214 (third publication).—The Secretary to the Marine Board, Port Adelaide, has given notice (No. 10 of 1906) that a Cheese-shaped buoy, painted black, has been placed in 2½ fathoms off the end of the reef to the eastward of and close to Louth Bay jetty.

There is no less water to the northward of the buoy, but it shoals gradually from the buoy in towards the end of the jetty.

Approximate position, lat. 34° 32' S., long. 135° 56' 15" E.

This Notice affects Admiralty Chart No. 2389b.

INDIA WEST—BOMBAY COAST.

Mangalore—Wreck in anchorage disappeared.

No. 215 (third publication).—With reference to Notice to Mariners No. 426, dated 30th October 1905, issued by this office, the British Admiralty has given further notice (No. 472 of 1906) that the cargo boat which sank in a depth of 5½ fathoms in steamer anchorage, Mangalore, at a distance of 1½ miles S. 45° W., from Mangalore lighthouse, has disappeared, and is no longer an obstruction to the anchorage ground. It has consequently been removed from the charts.

Approximate position on chart No. 3267, lat. 12° 49½' N., long. 74° 49' E.

This Notice affects the following Admiralty Charts:—Netrani to Mangalore, No. 745; Mulki to Mount Dilli, No. 746; Mangalore harbour on chart No. 3267; Also, West coast of Hindustan Pilot, 1898, page 145.

CHINA, EAST COAST—SHANTUNG—KYAU CHAU BAY.

Yu nui san light-house—Fog bell established.

No. 216 (third publication).—The British Admiralty has given notice (No. 477 of 1906) that a fog bell, which will be struck in thick or foggy weather, when the fog signals of a passing vessel are heard, has been established at Yu nui san light-house, entrance to Kyau Chau bay.

Approximate position on chart No. 857, lat. 36° 23' N., long. 120° 16½' E.

This Notice affects the following Admiralty Charts:—Kyau Chau to Miau tau strait No. 1255; Kyau Chau bay, No. 857; Also List of Lights, Part VI, 1906, No. 883; and China Sea Directory, vol. III, 1904, page 529.

AUSTRALIA, WEST—ROEBUCK BAY.

Gantheaume Point light—Character altered.

No. 217 (third publication).—With reference to Notice to Mariners No. 313, dated 12th August 1905, issued by this office, the British Admiralty has given further notice (No. 493 of 1906) that on and after 1st May the character of Gantheaume Point light in the approach to Roebuck bay would be altered from fixed to white occulting every fifteen seconds, thus:—light, ten seconds; eclipse, five seconds.

Approximate position, lat. 17° 58½' S., long. 122° 10½' E.

This Notice affects the following Admiralty Charts:—Australia, north-west coast, No. 475; Buccaneer Archipelago to Bedout island, No. 1048; Roebuck bay, No. 858; Also List of Lights, Part VI, 1906, No. 1179a; Australia Directory, vol. III, 1905, page 215.

JAPAN—NAIKAI.

Osaka light—Red sector discontinued.

No. 218 (third publication).—The British Admiralty has given notice (No. 499 of 1906) that, after May 1906, the mouth of the Agikawa, being blocked in connection with the harbour works at Osaka, the red sector between the bearings of N. 73° E. and N. 83° E., shown from Fort Tempo zan light, would be discontinued, the light will then show *white* from the bearing of N. 62° W., through north and east, to S. 4° W.

Approximate position, lat. 34° 39½' N., long. 135° 25½' E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Naikai No. 2875; Kobe and Osaka, No. 16; Also, List of Lights, Part VI, 1906, No. 1042, and Sailing Directions for Japan, &c., 1904, page 419.

A. S. BALFOUR, LIEUT., R.N.,
Port Officer of Calcutta.
pro. tem.



APPENDIX TO

The Calcutta Gazette.

WEDNESDAY, JULY 11, 1906.

NOTICES TO MARINERS.

THE following Notices are published for general information.

CALCUTTA, the 6th July 1906.

W. A. INGLIS,
Secretary, Marine Department.

INDIA, WEST—BOMBAY COAST.

Bombay harbour—Ballard Pier extension works—Buoy removed.

No. 246 (first publication).—With reference to Notice to Mariners No. 244, dated 28th June 1906, issued by this office, the Bombay Government has given further notice (No. 68 of 1906) that the obstruction at the Ballard Pier extension works has now been raised and the buoy marking it removed.

This Notice affects Admiralty Chart :—Port of Bombay, No. 655; also West Coast of Hindustan Pilot, 4th Edition, 1898, page 201; and Supplement 1903, page 15.

EASTERN ARCHIPELAGO—JAVA—MADURA STRAIT.

Meinderts reef intended light—Amended description.

No. 247 (first publication).—With reference to Notice to Mariners No. 159, dated 12th May 1906, issued by this office, the British Admiralty has given further notice (No. 563 of 1906) that the period of system of the intended white occulting light on Meinderts reef will be ten seconds, thus:—light, five seconds, eclipse, five seconds, and not twenty seconds as previously announced.

Approximate position, lat. $7^{\circ} 40\frac{1}{2}'$ S., long. $114^{\circ} 26'$ E.

Further Notice will be given.

This Notice affects the following Admiralty Charts :—Eastern Archipelago, No. 941b; Java island, No. 1654; Also List of Lights, Part VI, 1906, No. 506; and Eastern Archipelago, Part II, 1904, page 140.

CHINA—CANTON RIVER—BOCA TIGRIS.

Chain rock—Light intended.

No. 248 (*first publication*).—The British Admiralty has given notice (No. 575 of 1906) that the Chinese Government intend, probably during next September, to exhibit a red fixed dioptric light of the 6th order, elevated 33 feet above high water, and visible from a distance of 7 miles, from a red brick tower, 30 feet high, surmounted by a pedestal lantern now in course of erection on Chain rock, Boca Tigris, Canton river.

Approximate position, lat. $22^{\circ} 47\frac{1}{4}'$ N., long. $113^{\circ} 37\frac{1}{4}'$ E.

Further Notice will be given when received.

This Notice affects the following Admiralty Charts:—Canton river, No. 2562; Lintin bar to Tiger island, No. 1741; Also List of Lights, Part VI, 1906, page 123; and China Sea Directory, vol. III, 1904, page 92.

PACIFIC OCEAN—ELLICE GROUP.

Nanomana island—Bank reported northward.

No. 249 (*first publication*).—The British Admiralty has given notice (No. 586 of 1906) of the existence of a bank, with a depth of 7 fathoms over it, situated at a distance of 2 miles N. 3° E. from the north point of Nanomana island, Ellice islands. This bank, on which rollers were observed, is about half a mile long in a north-easterly and south-westerly direction and two cables broad. It has been placed on the charts in approximately lat. $6^{\circ} 15\frac{1}{4}'$ S., long. $176^{\circ} 20\frac{1}{4}'$ E., and marked P.D.

(Variation 9° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—Ellice islands to Phoenix islands, No. 1830; plan of Nanomana island on chart No. 766; Also Pacific Islands, vol. II, 1900, page 260.

CEYLON, WEST COAST—COLOMBO.

Standard time adopted—Alteration in time of making Time Signal.

No. 250 (*first publication*).—The British Admiralty has given notice (No. 587 of 1906) that Standard time of India, that is of the meridian of $82^{\circ} 30'$ East longitude, has been adopted in Ceylon; the time signal at the Harbour Master's Office at Colombo will therefore in future be made at $4^h 15^m 0^s$ and at $20^h 15^m 0^s$ Standard Mean time, corresponding respectively to $22^h 45^m 0^s$ and $14^h 45^m 0^s$ Greenwich Mean time. In other respects this time signal is made as described in the Admiralty List of Time Signals, 1904, No. 28.

Approximate position, lat. $6^{\circ} 56' 34''$ N., long. $79^{\circ} 50' 34''$ E.

This Notice affects the following Admiralty Charts:—Ceylon, south coast, No. 813; Colombo harbour, No. 914; Also List of Time Signals, 1904, page 18, No. 28; West Coast of Hindustan Pilot, 1898, page 98; Supplement, 1903, page 5; Bay of Bengal Pilot, 1901, page 76; and Supplement, 1903, page 2.

The 6th July 1906.

EASTERN ARCHIPELAGO—MALACCA STRAIT—PULO PENANG.

Pulo Rimau light—Temporary alteration.

No. 241 (*second publication*).—With reference to Notice to Mariners No. 84, dated 3rd March 1905, issued by this office, the British Admiralty has given further notice (No. 548 of 1906) that further information, dated 9th April 1906, has been received from the Harbour Master at Penang that Pulo Rimau light (*red occulting*) will, in consequence of an accident, temporarily show white instead of red from the bearing of N. 59° E., through east, to S. 74° E.

Approximate position, lat. $5^{\circ} 14'$ N., long. $100^{\circ} 16\frac{1}{4}'$ E.

(Variation 2° Easterly in 1906.)

This Notice temporarily affects the following Admiralty Charts:—Acheh head to Tyngkok bay, No. 2760; Butang group to Pulo Berhala, No. 793; Penang harbour, No. 1366; Malacca strait, No. 1355; also, List of Lights, Part VI, 1906, No. 408; and China Sea Directory, Vol. I, 1896, page 147.

AUSTRALIA SOUTH—PORT ADELAIDE RIVER.

Light beacons under construction.

No. 242 (second publication).—The British Admiralty has given Notice (No. 552 of 1906) that, in connection with the erection of light beacons abreast beacons Nos. 3 to 9 on the north and east sides of the channel, Port Adelaide river, a barge exhibiting an anchor light at night will be moored in the stream during the progress of the work, which will be commenced from No. 9 beacon. A green fixed light will be exhibited from each beacon when completed.

Approximate position, No. 9 beacon, lat. $34^{\circ} 47\frac{1}{2}'$ S., long. $138^{\circ} 31'$ E.

Further notice will be given when these beacons are completed.

This Notice affects the following Admiralty Chart:—Port Adelaide, No. 1750; also, List of Lights, Part VI, 1906, page 206; and Australia Directory, Vol. I, 1897, page 332.

AUSTRALIA, SOUTH—GULF OF ST. VINCENT.

Port Adelaide river—Extra Beacons placed—Amended Sailing Directions.

No. 243 (second publication).—With reference to Notice to Mariners No. 62, dated 10th February 1906, issued by this office, the Secretary, Marine Board, Port Adelaide, has given further notice (No. 11 of 1906) that eight extra beacons have been placed on the north and east side of the cutting. The beacons are painted black and the lanterns green, from which a green light showing towards the cutting is exhibited; a white light is also exhibited from the back of each lantern showing towards the shore.

All the green light beacons are numbered from the first or seaward beacon with the letter "G" added as follows:—No. 0G, being outside beacon; No. 1G, near the reflecting beacon; No. 2G, opposite the old boat channel. This light indicates the turning point from No. 2 (red) lead towards No. 3. All the others, that is, Nos. 3G to 9G, both inclusive, are placed opposite the corresponding numbers of the white light beacons on the other side of the cutting.

All the single light beacons are placed about 15 feet back from the cutting, and painted red to starboard and black to port. The lights are white to starboard and green to port from seaward.

The red light on the pile beacon south of No. 3 being no longer required will, on and after the 1st June 1906, be discontinued.

In consequence of the above alterations the sailing directions have been amended to read as follows:—

Sailing Directions.

By night.—In approaching the anchorage, vessels of deep draught should not bring the white light on the old structure to bear north of N. E. by E. in order to avoid the four-fathom patch, which bears N. W. half N. from the light on Wonga Shoal; then get No. 1 lead (which consists of two red lights vertical 10 feet apart, and two white lights vertical 11 feet 9 inches apart) in line; keep these in line passing between the occulting light on the red buoy and the outer green light on the north bank, also between the other green lights on the north bank and the white lights on the revetment mound.

Steer on the same line until the two red lights of No. 2 lead are coming on; then steer with them in line until abreast of No. 2G beacon; then direct the course to pass between No. 3 and No. 3G beacons; and so on from beacon to beacon round the point until No. 9 is reached. From a safe distance off No. 9 the lights of No. 10 lead will be seen; keep them in line until the red light is about a quarter of a point open to the right of the white light of No. 11 lead; then gradually alter the course to bring the lights of No. 11 lead in line; keep them in line (a sharp look out being kept for the mooring buoys on the starboard hand) until the lights of No. 12 lead are seen coming into line; proceed as before by altering the course before the lights are on with each other. The same applies in the change from No. 12 to No. 13 lead. When the lights on the wharves are seen opening out off Luff Point, alter the course so as to round the point at a safe distance, and then up the centre of the channel, looking out for the mooring buoys on the starboard hand.

In going outwards the directions are just the opposite to those given for those coming inwards; but in such case, in changing from one lead to another, the course should be gradually altered when abreast of the low (red) beacon of each lead, excepting No. 2 lead. In this case, when abreast of No. 8 beacon, gradually alter the course to a safe distance off No. 2G until the two red lights of No. 2 lead are in line, then proceed outwards with No. 2 lead in line.

By day.—The directions by day are the same as by night, merely substituting the beacons for the lights.

This affects Admiralty Charts 2389A and B, 1750 and 1752.

During the progress of the work at the Light's Passage Harbour Works, masters of vessels exempt from pilotage may, if they so desire, avail themselves of the services of a pilot to assist them in passing such works, either in or out, at one-half the usual rates.

If the usual exemption flag is not hoisted, it will be taken as a signal that a pilot is required. At night if a pilot is required the usual signal for a pilot should be shown.

N.B.—Owing to the nature of the work in progress, this notice may require to be amended from time to time, and therefore should be treated as tentative only.

INDIA, WEST—BOMBAY COAST.

Bombay harbour—Ballard pier—New extension works marked by buoy.

No. 244 (second publication).—The Bombay Government has given notice (No. 65 of 1906) that several blocks of concrete have been washed off the works at the East end of the Ballard Pier Extension somewhat obstructing the passage to the old steps.

2. A small black painted conical Buoy will be moored to mark the end of this obstruction which has a depth on it of 12 feet at Low Water.

3. Vessels approaching this draught should not pass between the Buoy and end of the new Pier Extension works.

This Notice affects Admiralty Chart :—Port of Bombay, No. 655; also West Coast of Hindustan Pilot, 4th edition, 1898, page 301; and Supplement, 1903, page 16.

INDIA, WEST—BOMBAY (GOA) COAST.

Diu lights—Their non-exhibition during certain months.

No. 245 (second publication).—The following Notice to Mariners issued by the Bombay Government (No. 66 of 1906) is republished :—

Information, dated 17th May 1906, has been received from the Captain of the Port that the following lights at Diu, viz., the Red fixed light of the Forte de Mar and the White fixed light on the Castle Culwark foundation, will not be exhibited during the months of June, July and August 1906.

This Notice affects the following Admiralty Charts :—Gulf of Kutch to Visiadrug (plan Diu harbour), No. 2736; Dicarka Point to Diu Head, No. 1420; and Diu Head to Goapnath Point, No. 50; and West Coast of Hindustan Pilot, fourth edition, 1898, page 258, and Supplement 1903, page 16; also Admiralty Light List, Part VI, 1906, Nos. 217 and 218, and List of Light-houses and Light-vessels in British India, Nos. 217 and 218.

The 28th June 1906.

BAY OF BENGAL.

Caution—Report of floating wreckage.

No. 219 (third publication).—A telegraphic communication has been received from Colombo, dated S.S. *Begonia*, 12th June, stating that a large amount of floating wreckage setting eastward was passed in latitude 14° N., longitude 85° E. Mariners are hereby warned.

The 19th June 1906.

NEW ZEALAND—SOUTH ISLAND.

Taiaroa head—Otago harbour entrance—Fog signal altered.

No. 220 (third publication).—The British Admiralty has given notice (No. 503 of 1906) that on 20th April 1906, the fog gong on Taiaroa head, Otago harbour entrance, would be replaced by a fog explosive, which will give during thick or foggy weather one report every six minutes.

Approximate position, lat. 45° 47' S., long. 170° 45' E.

This Notice affects the following Admiralty Charts :—Otago to Mataura river No. 2533; Ninety Miles beach to Otago, No. 2532; Otago harbour, No. 2411; Also, List of Lights, Part VI, 1906, No. 1677; New Zealand Pilot, 1901, page 293; and Supplement, 1903, page 25.

PACIFIC OCEAN, SOUTH—SOCIETY ISLANDS.

Buoyage unreliable.

No. 221 (*third publication*).—The British Admiralty has given notice (No. 504 of 1906) that owing to the recent hurricane the buoyage of those islands cannot be depended on.

Approximate position, lat. $17^{\circ} 0' S.$, long. $150^{\circ} 0' W.$

This Notice affects the following Admiralty Chart:—Tuamotu or Line Archipelago, No. 767; Also Pacific Islands, vol. III, 1900, page 47; and Supplement 1903, page 4.

EASTERN ARCHIPELAGO—SUMATRA, WEST COAST—KONINGINNE BAY.

Emma haven light—White sector abolished.

No. 222 (*third publication*).—With reference to Notice to Mariners No. 111, dated 26th March 1906, issued by this office, the British Admiralty has given further notice (No. 505 of 1906) that the white sector in the light (*fixed*) exhibited from the breakwater head, Emma haven, has been abolished, the light now shows red from the bearing of North to N. $84^{\circ} E.$

Approximate position, lat. $1^{\circ} 0' S.$, long. $100^{\circ} 22\frac{1}{2}' E.$

(*Variation 2° Easterly in 1906.*)

This Notice affects the following Admiralty Charts:—Ujong Masany to Ujong Indrapura, No. 709; Koninginne bay, No. 212; Also List of Lights, Part VI, 1906, No. 466; China Sea Directory, vol. I, 1896, page 302; and Supplement, 1899, page 21.

CEYLON, WEST COAST—COLOMBO HARBOUR APPROACH.

Nilkete rocks—Wreck of the S. S. "Kazan."

No. 223 (*third publication*).—The British Admiralty has given notice (No. 508 of 1906) that the wreck of the S.S. *Kazan*, which ran on the Nilkete rocks in the approach to Colombo harbour, forms a prominent object from seaward, and as the vessel is unlikely to disappear quickly she will be useful as a navigational aid for some time.

Approximate position, lat. $6^{\circ} 41' N.$, long. $79^{\circ} 52\frac{1}{2}' E.$

This Notice affects the following Admiralty Chart:—Ceylon, No. 813; Also Bay of Bengal Pilot, 1901, page 77; and Bay of Bengal Pilot, 1898, page 93.

PACIFIC OCEAN—NEW HEBRIDES GROUP.

Malekula island—Rock reported off the south-west coast.

No. 224 (*third publication*).—The British Admiralty has given notice (No. 502 of 1906) of the existence of a rocky ridge, with a depth of 15 feet over it, off the south-west coast of Malekula island, situated in a position from which Molembi island bears N. $45^{\circ} E.$, distant 2 cables, and the south-western extremity of Malekula island S. $52^{\circ} E.$

This ridge, which is about 30 yards long and 10 yards broad, is steep-to, and has depths of $4\frac{1}{2}$ fathoms around it.

Approximate position, lat. $16^{\circ} 33\frac{1}{2}' S.$, long. $167^{\circ} 27' E.$

(*Variation 9° Easterly in 1906.*)

This Notice affects the following Admiralty Charts:—Malo island to Efate island, No. 1570; Malekula island, No. 1579; plan of Ure on chart No. 500; Also Pacific Islands, vol. II, 1900, page 458.

EASTERN ARCHIPELAGO—CELEBES, WEST COAST—MARASSAR APPROACH.

Kapoposang—Intended light—Dajang Dajangan—Intended alteration in light.

No. 225 (*third publication*).—The British Admiralty has given notice (No. 513 of 1906) that about October 1906, a white flashing light every five seconds, of the 5th order, elevated 108 feet above high water, and visible in clear weather from a distance of 16 miles,

will be established on an iron framework support, 108 feet high and painted white, erected on the western point of Kapoposang island.

Approximate position, lat. $4^{\circ} 41\frac{1}{2}'$ S., long. $118^{\circ} 56\frac{3}{4}'$ E

Also, that at the same time Dajang Dajangan light will be altered from fixed to a *white flashing* light every fifteen seconds, thus: flash, five seconds; eclipse, ten seconds; it will be elevated 105 feet above high water, and shown from a support 108 feet high.

Approximate position, lat. $5^{\circ} 23\frac{1}{2}'$ S., long. $119^{\circ} 11'$ E.

Further notice will be given when these alterations have been made.

This Notice affects the following Admiralty Charts:—Strait of Makassar, No. 2637; approach to Makassar, No. 1293; also List of Lights, Part VI, 1906, page 93, No. 553; and Eastern Archipelago, Part II, 1904, pages 311, 305.

EASTERN ARCHIPELAGO—JAVA, NORTH COAST.

Pamanukan rock buoy—To be replaced by light buoy.

No. 226 (third publication).—The British Admiralty has given notice (No. 514 of 1906) that the black bell-buoy surmounted by a ball, marking Pamanukan rock, will be replaced by a light buoy, painted black, exhibiting a *white occulting* light every twenty seconds, thus: light, ten seconds; eclipse, ten seconds.

Approximate position, lat. $6^{\circ} 1'$ S., long. $107^{\circ} 52\frac{1}{2}'$ E.

Further notice will be given when this alteration is made.

This Notice affects the following Admiralty Chart:—Java, No. 1653; also Eastern Archipelago, Part II, 1904, page 97.

EASTERN ARCHIPELAGO—JAVA, EAST COAST—BALI STRAIT.

Banjuwangi light—Intended alteration.

No. 227 (third publication).—The British Admiralty has given notice (No. 515 of 1906) that it is intended to replace the white fixed light at Banjuwangi by a *white flashing* light every fifteen seconds, thus:—flash, three seconds; eclipse, twelve seconds. The light will be of the 6th order and produced by acetylene gas.

Approximate position, lat. $8^{\circ} 12\frac{1}{2}'$ S., long. $114^{\circ} 22\frac{3}{4}'$ E.

Further notice will be given when this alteration has been made.

This Notice affects the following Admiralty Charts:—Java, eastern portion, No. 1654; plan of Bali strait on chart No. 934; plan of Banjuwangi on chart No. 932; also List of Lights, Part VI, 1906, No. 508; and Eastern Archipelago, Part II, 1904; page 144.

EASTERN ARCHIPELAGO—BORNEO, SOUTH-EAST COAST.

Pulo Laut strait—Intended light-buoy.

No. 228 (third publication).—The British Admiralty has given notice (No. 516 of 1906) that it is intended to establish a light buoy exhibiting a *white occulting* light every twenty seconds, thus:—light, ten seconds; eclipse, ten seconds; near Petang Point, in the southern entrance to Pulo Laut strait.

Approximate position, lat. $3^{\circ} 37\frac{1}{2}'$ S., long. $115^{\circ} 57\frac{1}{4}'$ E.

Further Notice will be given.

This Notice affects the following Admiralty Chart:—Plan of Pulo Laut strait on chart No. 2662; also Eastern Archipelago, Part II, 1904, page 277.

EASTERN ARCHIPELAGO—JAVA—BALI STRAIT.

Balambangan, south point—Intended light.

No. 229 (third publication).—The British Admiralty has given notice (No. 517 of 1906) that it is intended in November to establish a *white flashing* light every five seconds on the south coast of Balambangan peninsula; it will be elevated 253 feet above high water, and visible in clear weather from a distance of 22 miles from the bearing of S. 76° W., through

west and north to S. 77° E. The light, which will be of the 4th order and produced by acetylene gas, will be shown from an iron framework support, 69 feet high and painted white.

Approximate position, lat. 8° 46½' S., long. 114° 31½' E.

Further notice will be given when received.

(Variation 2° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—Eastern Archipelago, No. 941b; Java island, No. 1654; plan of Bali strait on chart No. 934; also List of Lights, Part VI, 1906, page 87; and Eastern Archipelago, Part II, 1904, page 191.

EASTERN ARCHIPELAGO—JAVA—BALI STRAIT.

Bansering—Intended leading lights.

No. 230 (third publication).—The British Admiralty has given notice (No. 518 of 1906) that it is intended to establish near Bansering two leading lights, one mile apart, in a direction N. 4° E. and S. 4° W. from each other, the northern and high light being *white fixed* and the low light *red fixed*, each light being produced by acetylene gas.

Approximate position, high light, lat. 8° 3½' S., long. 114° 25½' E.

Further notice will be given when received.

(Variation 2° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—Eastern Archipelago, No. 941b; Java island, No. 1654; plan of Bali strait on chart No. 934; also List of Lights, Part VI, 1906, page 87; and Eastern Archipelago, Part II, 1904, page 143.

EASTERN ARCHIPELAGO—BALI ISLAND—BALI STRAIT.

Lichin Point—Intended light buoy in its vicinity.

No. 231 (third publication).—The British Admiralty has given notice (No. 519 of 1906) that it is intended to establish in the vicinity of Lichin Point, Bali strait, a light buoy exhibiting a *white occulting light every twenty seconds*, thus:—light, ten seconds; eclipse, ten seconds.

Approximate position, lat. 8° 7½' S., long. 114° 25½' E.

Further notice will be given when received.

This Notice affects the following Admiralty Charts:—Eastern Archipelago, No. 941b; Java island, No. 1654; plan of Bali strait on chart No. 934; also Eastern Archipelago, Part II, 1904, page 147.

EASTERN ARCHIPELAGO—SUMATRA, NORTH-EAST COAST.

Straits of Durian and Berhala—Intended light buoys.

No. 232 (third publication).—The British Admiralty has given notice (No. 520 of 1906) that it is intended to establish the undermentioned light buoys in the straits of Durian and Berhala in the following positions:—

- (a) STRAIT OF DURIAN—A light buoy, painted white, exhibiting a *white occulting light every twenty seconds*, thus:—light, ten seconds; eclipse, ten seconds, on the north-eastern side of Richardson reef.

Approximate position, lat. 0° 37½' N., long. 103° 43' E.

- (b) BERHALA STRAIT—A light buoy, painted in red and black horizontal bands, exhibiting a *white occulting light every twenty seconds*, thus:—light, ten seconds; eclipse, ten seconds, on the south-eastern side of Speke rock.

Approximate position, lat. 0° 37' S., long. 104° 6½' E.

This Notice affects the following Admiralty Charts:—Strait of Durian No. 2402; channels between Sumatra and Linga, No. 1789; also China Sea Directory, vol. I, 1896, pages 557, 546; and Supplement, 1899, page 41.

JAPAN—NAIKAI (INLAND SEA).

Shimonoseki strait—Wreck.

No. 233 (third publication).—The British Admiralty has given notice (No. 525 of 1906) that the wreck of a schooner lies sunk in Shimonoseki strait, in a position from which Manaita light beacon bears N. 87° E., distant 2½ cables, and Konpira hill N. 15° E. A mast was showing about 3 feet above water, but this would probably disappear.

Approximate position, lat. 33° 55' N., long. 130° 53½' E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*Shimonoseki strait*, No. 1578; also *Sailing Directions for Japan*, &c., 1904, page 505.

RED SEA—SUEZ BAY.

Etuleh shoal—Bury replaced by light buoy.

No. 234 (third publication).—With reference to Notice to Mariners No. 183, dated 30th May 1903, issued by this office, the British Admiralty has given further notice (No. 527 of 1906) that the red buoy surmounted by a staff and cage, moored south-eastward of the Etuleh shoal, Suez bay, at distance of 13½ cables N. 64° W. from Kal ah Kebireh central beacon, has been replaced by a light buoy exhibiting a *white fixed* light.

Approximate position, lat. 29° 55' N., long. 32° 30' E.

(Variation 34° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*Suez bay*, No. 734; also *Red Sea*, &c., *Pilot*, 1900, page 89; and *Supplement*, 1904, page 12.

CHINA, EAST COAST—YANG TSE KIANG ESTUARY.

Period of system of light buoys altered.

No. 235 (third publication).—The British Admiralty has given notice (No. 533 of 1906) that the period of system of each light buoy from which an occulting light is exhibited in the Yang tse estuary is now every eight seconds, thus:—light, four seconds; eclipse, four seconds.

This Notice affects the following Admiralty Chart:—*Approaches to the Yang tse Kiang*, No. 1602; *Shanghai to Nanking*, No. 2809; also *China Sea Directory*, vol. III, 1904, pages 402, 408, 409, 413.

KOREA, WEST COAST.

Irikobari somu (Pinnacle island) light—Its amended position.

No. 236 (third publication).—With reference to Notice to Mariners No. 41, dated 24th January 1906, issued by this office, the British Admiralty has given further notice (No. 534 of 1906) that the period of system of Irikobari light (*white flashing*) is fifteen, and not ten seconds as previously stated.

Approximate position, lat. 34° 47½' N., long. 125° 47½' E.

This Notice affects the following Admiralty Charts:—*Korean Archipelago* No. 104; *western coast of Korea*, No. 913; *S. W. coast of Korea*, No. 3365; also *List of Lights*, Part VI, 1906, No. 922; and *Sailing Directions for Japan*, etc., 1904, page 74.

PACIFIC OCEAN, SOUTH-WEST—KERMADEC GROUP.

Raoul or Sunday island—Shoals in East anchorage.

No. 237 (third publication).—The British Admiralty has given notice (No. 538 of 1906) that the Navigating Officer's Remark Book, H.M.S. *Prometheus*, 1905, contains the following information respecting the existence of the undermentioned pinnacle rocks in East anchorage of Raoul or Sunday island, situated in the following positions:—

- (1) A rock, with a depth of 2 fathoms over it at low water, 5½ cables N. 87° E. from Rayner Point.
- (2) A rock, with a depth of 2½ fathoms over it at low water, 5½ cables S. 87° E. from Rayner Point.

- (3) A rock, with a depth of 2 fathoms over it at low water, 3 cables S. 67° E. from Rayner Point.
 (4) A rock, with a depth of 2 fathoms over it at low water, 3 cables S. 86° E. from Rayner Point.
 (5) A rock, with a depth of 2 fathoms over it at low water, 3 cables N. 87° E. from Rayner Point.

These rocks appear to be steep-to, having depths of 7, 8, and 9 fathoms around them.

Approximate position, Rayner Point, lat. 29° 15½' S., long. 177° 59½' E.

(Variation 12° Easterly in 1906.)

This Notice affects the following Admiralty Chart :—Raoul or Sunday island, No. 568 ; also New Zealand Pilot, 1901, page 384 ; and Supplement, 1903, page 28.

The 23rd June 1906.

INDIA, WEST—BOMBAY COAST.

Bombay harbour—New dock works—Petroleum Jetty.

No. 238 (third publication).—With reference to Notice to Mariners No. 53, dated 10th February 1906, issued by this office, the Bombay Government has given further notice (No. 57 of 1906) that the dam being completed, a wooden pile jetty, called the Petroleum Jetty, 120 feet long, has been constructed on the east face of the dam to accommodate oil steamers visiting the port and replacing the floating pipe line and pontoons, which have now been withdrawn.

2. Two mooring buoys have been laid down north and south of the Petroleum Jetty for the oil steamers.

3. Further, the east face of the dam is being continued in a northerly direction, and the works, as they progress, will be marked by a black can buoy, exhibiting a red light at night. Vessels or boats should not pass to the westward of this buoy.

This Notice affects Admiralty Chart :—Port of Bombay, No. 655 ; also West Coast of Hindustan Pilot, 4th edition, 1898, page 201, and Supplement, 1903, page 15.

INDIA, WEST—BOMBAY COAST.

Rajpuri Point—Red buoy removed for the south-west monsoon.

No. 239 (third publication).—The Bombay Government has given notice (No. 60 of 1906) that the red buoy on the north side of the "Whale reef" off the Rajpuri Point was removed for the south-west monsoon on the 19th May 1906.

INDIA, WEST—BOMBAY COAST.

Buoys between Alibag and Bhatkal—Dates of removal from their positions.

No. 240 (third publication).—With reference to Notice to Mariners No. 186, dated 26th May 1906, issued by this office, the Bombay Government has given further notice (No. 64 of 1906) that the undermentioned buoys were removed from their positions on the dates noted against each :—

Alibag buoy	...	...	...	17th May 1906.
Ambulgad Reef buoy	...	...	...	16th " "
Chaldia Rock buoy	...	...	...	15th " "
Malvan Outer Rock buoy...	...	...	...	16th " "
Johnstone Castle buoy	...	...	...	17th " "
Vengurla Harbour buoy	...	...	...	20th " "
Malvan Harbour buoy	...	...	...	17th " "
Murdeahwar buoy	...	...	...	13th " "
Bhatkal buoy	...	...	...	17th " "

The 25th June 1906.

A. S. BALFOUR, LIEUT., R.I.M.,
 Port Officer of Calcutta.
 pro. tem.



APPENDIX TO

The Calcutta Gazette.

WEDNESDAY, JULY 18, 1906.

NOTICES TO MARINERS.

The following Notices are published for general information.

CALCUTTA, the 13th July 1906.

W. A. INGLIS,
Secretary, Marine Department.

BAY OF BENGAL.—BURMA COAST.

Arakan river—Outer bar shoaling.

No. 251 (*first publication*).—The British Admiralty has given notice (No. 592 of 1906) that there is considerably less water than shown on the chart on the outer bar of the Arakan river, in the approach to Akyab. A note to this effect has been placed on the charts.

Approximate position, lat. $20^{\circ} 3' N.$, long. $92^{\circ} 54' E.$

This Notice affects the following Admiralty Charts:—Elephant Point to Cheduba strait, No. 821; Arakan river with plan of Akyab, No. 1884; also Bay of Bengal Pilot, 1901, page 256.

AFRICA, SOUTH—CAPE COLONY.

Immigration flag—Description and use of.

No. 252 (*first publication*).—The British Admiralty has given notice (No. 595 of 1906) that a yellow flag having a black ball in the centre has been adopted as the Immigration flag at all ports within the colony. This flag (hoisted at the stay) by vessels arriving in port denotes that the examination of passengers by the Immigration Officer is being carried out, and that no person not provided with a permit, or duly authorised by the Immigration Office, is, under penalty, allowed on board that vessel.

This Notice affects the following Admiralty Publications:—Africa Pilot, Part I, 1901, page 84; and Africa Pilot, Part III, 1905, page 17.

JAPAN—NAIKAI.

Akashi no seto—Wreck of a sunken vessel.

No. 253 (first publication).—The British Admiralty has given notice (No. 600 of 1906) that the wreck of a vessel lies sunk in Akashi no seto, in a position from which Yesaki light bears S. 40° W., distant 2 miles and Hira iso light S. 67° E.

Approximate position, lat. 34° 38' N., long. 135° 1' E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Akashi no seto No. 93 : also Sailing Directions for Japan, &c., 1904, page 426.

CHINA, NORTH—LIAU RIVER.

Newchwang—Beacon removed in approach—Time signal altered.

No. 254 (first publication).—The British Admiralty has given notice (No. 601 of 1906) that the surveying beacon (new beacon) on the eastern bank of Liau river, formerly situated at a distance of 3 cables S. 40° E. from Nodding Tommy beacon, is no longer in existence.

Also that the time-ball at the Custom House flagstaff, Newchwang, is dropped every day at 0^h 0^m 0^s mean time of the 120° of East longitude, or 16^h 0^m 0^s G.M.T., instead of on Saturdays at 0^h 0^m 0^s Local Mean time as formerly. Further particulars in regard to this signal are not given, but it is presumed that Standard time of the 120th meridian of East longitude has been adopted at Newchwang for general use.

Approximate position, Custom House flagstaff on chart No. 2894, lat. 40° 43' 25" N., long. 122° 15' 55" E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Liau river, No. 2894 : also List of Time Signals, 1904, page 78 ; and China Sea Directory, vol. III, 1904, pages 645, 649.

EASTERN ARCHIPELAGO—JAVA, NORTH COAST.

Batavia roads, Vader Smit shoal—Depth over.

No. 255 (first publication).—With reference to Notice to Mariners, No. 202, dated 7th June 1906, issued by this office, the British Admiralty has given further notice (No. 614 of 1906) that the undermentioned coral shoals in Batavia roads are believed to be identical with Vader Smit shoal, which is shown on the chart as having a depth of 3 fathoms over it:—

- (a) The shoal, about 65 yards in extent, with a depth of 7 feet over it, situated in approximately lat. 6° 4' 0" S., long. 106° 51' 15" E.
- (b) The shoal, about 45 yards in extent, with a depth of 11 feet, situated in approximately lat. 6° 4' 5" S., long. 106° 51' 5" E.

The 3-fathom patch has therefore been erased from the Admiralty chart.

Approximate position, lat. 6° 4' S., long. 106° 51' E.

This Notice affects the following Admiralty Charts:—Sunda strait, No. 2056 ; Batavia road, No. 933 : also Eastern Archipelago, Part II, 1904, pages 88, 89.

INDIA, WEST—BOMBAY (GOA) COAST.

Aguada light—Character altered.

No. 256 (first publication).—The British Admiralty has given notice (No. 615 of 1906) that the character of the light at Aguada fort, Goa, would be altered from white fixed to white group flashing, showing groups of three flashes every ten seconds, thus:—flash, half a second ; eclipse, one and-a-half seconds ; flash, half a second ; eclipse, one and-a-half seconds ; flash half a second ; eclipse, five and-a-half seconds : it would be visible in clear weather from a distance of 23 miles.

Approximate position, lat. 15° 29½' N., long. 73° 46' E.

This Notice affects the following Admiralty Charts:—Indian Ocean, No. 7486 ; Karachi to Vengurla, No. 826 ; Vengurla to cape Comorin, No. 827 ; Visiadrug to Cobbin, No. 2737 ; Abra river to cape Ramas, No. 740 ; Murmagao and Goa roadsteads, No. 492 : also List of Lights, Part VI, 1906, No. 257 ; and West Coast of Hindustan Pilot, 1898, page 164.

CHINA SEA—SOUTHERN PORTION.

St. Esprit islands—Non-existence of discoloured water south-westward.

No. 257 (first publication).—The British Admiralty has given notice (No. 616 of 1906) that a careful examination has been made of the area in the neighbourhood of the position, where discoloured water was reported to have been seen, about 25 miles to the south-westward of St. Esprit islands without finding any indication of dangers.

As this discoloured water was merely observed by the Master of the German ship *Rebecca* in 1875 without any means being taken to ascertain if it was shoal water or not, the words "Discoloured water" have been erased from the charts.

Approximate position, lat. $0^{\circ} 30' N.$, long. $106^{\circ} 38' E.$

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941a; *China Sea*, No. 2660a: also *China Sea Directory*, vol. II, 1899, page 49.

ST. L. S. WARDEN, COMMDR., R.I.M.,

Port Officer of Calcutta.

The 13th July 1903.

INDIA, WEST—BOMBAY COAST.

Bombay harbour—Ballard Pier extension works—Buoy removed.

No. 246 (second publication).—With reference to Notice to Mariners No. 244, dated 28th June 1906, issued by this office, the Bombay Government has given further notice (No. 68 of 1906) that the obstruction at the Ballard Pier extension works has now been raised and the buoy marking it removed.

This Notice affects Admiralty Chart:—*Port of Bombay*, No. 656; also *West Coast of Hindustan Pilot*, 4th Edition, 1898, page 201; and *Supplement 1903*, page 15.

EASTERN ARCHIPELAGO—JAVA—MADURA STRAIT.

Meinderts reef intended light—Amended description.

No. 247 (second publication).—With reference to Notice to Mariners No. 159, dated 12th May 1906, issued by this office, the British Admiralty has given further notice (No. 563 of 1906) that the period of system of the intended *white occulting* light on Meinderts reef will be *ten seconds*, thus:—light, *five seconds*, eclipse, *five seconds*, and not *twenty seconds* as previously announced.

Approximate position, lat. $7^{\circ} 40\frac{1}{2}' S.$, long. $114^{\circ} 26' E.$

Further Notice will be given.

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941b; *Java island*, No. 1654; Also *List of Lights*, Part VI, 1906, No. 506; and *Eastern Archipelago*, Part II, 1904, page 140.

CHINA—CANTON RIVER—BOCA TIGRIS.

Chain rock—Light intended.

No. 248 (second publication).—The British Admiralty has given notice (No. 575 of 1906) that the Chinese Government intend, probably during next September, to exhibit a *red fixed* dioptric light of the 6th order, elevated 33 feet above high water, and visible from a distance of 7 miles, from a red brick tower, 30 feet high, surmounted by a pedestal lantern now in course of erection on Chain rock, Boca Tigris, Canton river.

Approximate position, lat. $22^{\circ} 47\frac{1}{2}' N.$, long. $113^{\circ} 37\frac{1}{2}' E.$

Further Notice will be given when received.

This Notice affects the following Admiralty Charts:—*Canton river*, No. 2562; *Lintin bar to Tiger island*, No. 1741; Also *List of Lights*, Part VI, 1906, page 123; and *China Sea Directory*, vol. III, 1904, page 92.

PACIFIC OCEAN—ELLICE GROUP.

Nanomana island—Bank reported northward.

No. 249 (second publication).—The British Admiralty has given notice (No. 586 of 1906) of the existence of a bank, with a depth of 7 fathoms over it, situated at a distance of 2 miles N. 3° E. from the north point of Nanomana island, Ellice islands. This bank, on which rollers were observed, is about half a mile long in a north-easterly and south-westerly direction and two cables broad. It has been placed on the charts in approximately lat. 6° 15½' S., long. 176° 20¼' E., and marked P.D.

(Variation 9° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Ellice islands to Phoenix islands*, No. 1830; *plan of Nanomana island on chart No. 766*; *Also Pacific Islands*, vol. II, 1900, page 260.

CEYLON, WEST COAST—COLOMBO.

Standard time adopted—Alteration in time of making Time Signal.

No. 250 (second publication).—The British Admiralty has given notice (No. 587 of 1906) that Standard time of India, that is of the meridian of 82° 30' East longitude, has been adopted in Ceylon; the time signal at the Harbour Master's Office at Colombo will therefore in future be made at 4^h 15^m 0^s and at 20^h 15^m 0^s Standard Mean time, corresponding respectively to 22^h 45^m 0^s and 14^h 45^m 0^s Greenwich Mean time. In other respects this time signal is made as described in the Admiralty List of Time Signals, 1904, No. 28.

Approximate position, lat. 6° 56' 34" N., long. 79° 50' 34" E.

This Notice affects the following Admiralty Charts:—*Ceylon, south coast*, No. 813; *Colombo harbour*, No. 914; *Also List of Time Signals*, 1904, page 18, No. 28; *West Coast of Hindustan Pilot*, 1898, page 98; *Supplement*, 1903, page 5; *Bay of Bengal Pilot*, 1901, page 76; and *Supplement*, 1903, page 2.

The 6th July 1906.

EASTERN ARCHIPELAGO—MALACCA STRAIT—PULO PENANG.

Pulo Rimau light—Temporary alteration.

No. 241 (third publication).—With reference to Notice to Mariners No. 84, dated 3rd March 1905, issued by this office, the British Admiralty has given further notice (No. 548 of 1906) that further information, dated 9th April 1906, has been received from the Harbour Master at Penang that Pulo Rimau light (*red occulting*) will, in consequence of an accident, temporarily show *white* instead of red from the bearing of N. 59° E., through east, to S. 74° E.

Approximate position, lat. 5° 14' N., long. 100° 16½' E.

(Variation 2° Easterly in 1906.)

This Notice temporarily affects the following Admiralty Charts:—*Acheh head to Tyingkok bay*, No. 2760; *Butang group to Pulo Berhala*, No. 793; *Penang harbour*, No. 1366; *Malacca strait*, No. 1355; also, *List of Lights*, Part VI, 1906, No. 408; and *China Sea Directory*, Vol. I, 1896, page 147.

AUSTRALIA SOUTH—PORT ADELAIDE RIVER.

Light beacons under construction.

No. 242 (third publication).—The British Admiralty has given Notice (No. 552 of 1906) that, in connection with the erection of light beacons abreast beacons Nos. 3 to 9 on the north and east sides of the channel, Port Adelaide river, a barge exhibiting an anchor light at night will be moored in the stream during the progress of the work, which will be commenced from No. 9 beacon. A *green sized* light will be exhibited from each beacon when completed.

Approximate position, No. 9 beacon, lat. 34° 47½' S., long. 138° 31' E.

Further notice will be given when these beacons are completed.

This Notice affects the following Admiralty Chart:—*Port Adelaide*, No. 1750; also, *List of Lights*, Part VI, 1906, page 206; and *Australia Directory*, Vol. I, 1897, page 332.

AUSTRALIA, SOUTH—GULF OF ST. VINCENT.

Port Adelaide river—Extra Beacons placed—Amended Sailing Directions.

No. 243 (third publication).—With reference to Notice to Mariners No. 62, dated 10th February 1906, issued by this office, the Secretary, Marine Board, Port Adelaide, has given further notice (No. 11 of 1906) that eight extra beacons have been placed on the north and east side of the cutting. The beacons are painted black and the lanterns green, from which a green light showing towards the cutting is exhibited; a white light is also exhibited from the back of each lantern showing towards the shore.

All the green light beacons are numbered from the first or seaward beacon with the letter "G" added as follows:—No. 0G, being outside beacon; No. 1G, near the reflecting beacon; No. 2G, opposite the old boat channel. This light indicates the turning point from No. 2 (red) lead towards No. 3. All the others, that is, Nos. 3G to 9G, both inclusive, are placed opposite the corresponding numbers of the white light beacons on the other side of the cutting.

All the single light beacons are placed about 15 feet back from the cutting, and painted red to starboard and black to port. The lights are white to starboard and green to port from seaward.

The red light on the pile beacon south of No. 3 being no longer required will, on and after the 1st June 1906, be discontinued.

In consequence of the above alterations the sailing directions have been amended to read as follows:—

Sailing Directions.

By night.—In approaching the anchorage, vessels of deep draught should not bring the white light on the old structure to bear north of N. E. by E. in order to avoid the four-fathom patch, which bears N. W. half N. from the light on Wonga Shoal; then get No. 1 lead (which consists of two red lights vertical 10 feet apart, and two white lights vertical 11 feet 9 inches apart) in line; keep these in line passing between the occulting light on the red buoy and the outer green light on the north bank, also between the other green lights on the north bank and the white lights on the revetment mound.

Steer on the same line until the two red lights of No. 2 lead are coming on; then steer with them in line until abreast of No. 2G beacon; then direct the course to pass between No. 3 and No. 3G beacons; and so on from beacon to beacon round the point until No. 9 is reached. From a safe distance off No. 9 the lights of No. 10 lead will be seen; keep them in line until the red light is about a quarter of a point open to the right of the white light of No. 11 lead; then gradually alter the course to bring the lights of No. 11 lead in line; keep them in line (a sharp look out being kept for the mooring buoys on the starboard hand) until the lights of No. 12 lead are seen coming into line; proceed as before by altering the course before the lights are on with each other. The same applies in the change from No. 12 to No. 13 lead. When the lights on the wharves are seen opening out off Luff Point, alter the course so as to round the point at a safe distance, and then up the centre of the channel, looking out for the mooring buoys on the starboard hand.

In going outwards the directions are just the opposite to those given for those coming inwards; but in such case, in changing from one lead to another, the course should be gradually altered when abreast of the low (red) beacon of each lead, excepting No. 2 lead. In this case, when abreast of No. 3 beacon, gradually alter the course to a safe distance off No. 2G until the two red lights of No. 2 lead are in line, then proceed outwards with No. 2 lead in line.

By day.—The directions by day are the same as by night, merely substituting the beacons for the lights.

This affects Admiralty Charts 2389A and B, 1750 and 1752.

During the progress of the work at the Light's Passage Harbour Works, masters of vessels exempt from pilotage may, if they so desire, avail themselves of the services of a pilot to assist them in passing such works, either in or out, at one-half the usual rates.

If the usual exemption flag is not hoisted, it will be taken as a signal that a pilot is required. At night if a pilot is required the usual signal for a pilot should be shown.

N.B.—Owing to the nature of the work in progress, this notice may require to be amended from time to time, and therefore should be treated as tentative only.

INDIA, WEST—BOMBAY COAST.

Bombay harbour—Ballard pier—New extension works marked by buoy.

No. 244 (third publication).—The Bombay Government has given notice (No. 65 of 1906) that several blocks of concrete have been washed off the works at the East end of the Ballard Pier Extension somewhat obstructing the passage to the old steps.

2. A small black painted conical Buoy will be moored to mark the end of this obstruction which has a depth on it of 12 feet at Low Water.

3. Vessels approaching this draught should not pass between the Buoy and end of the new Pier Extension works.

This Notice affects Admiralty Chart :—Port of Bombay, No. 655; also West Coast of Hindustan Pilot, 4th edition, 1898, page 201; and Supplement, 1903, page 15.

INDIA, WEST—BOMBAY (GOA) COAST.

Diu lights—Their non-exhibition during certain months.

No. 245 (third publication).—The following Notice to Mariners issued by the Bombay Government (No. 66 of 1906) is republished :—

Information, dated 17th May 1906, has been received from the Captain of the Port that the following lights at Diu, viz., the Red fixed light of the Forte de Mar and the White fixed light on the Castle Culwark foundation, will not be exhibited during the months of June, July and August 1906.

This Notice affects the following Admiralty Charts :—Gulf of Kutch to Visiadrug (plan Diu harbour), No. 2736; Diwarka Point to Diu Head, No. 1420; and Diu Head to Goapnath Point, No. 50; and West Coast of Hindustan Pilot, fourth edition, 1898, page 258, and Supplement 1903, page 16; also Admiralty Light List, Part VI, 1906, Nos. 217 and 218, and List of Light-houses and Light-vessels in British India, Nos. 217 and 218.

The 28th June 1906.

A. S. BALFOUR, LIEUT., R.I.M.,
Port Officer of Calcutta.
pro. tem.



APPENDIX TO

The Calcutta Gazette.

WEDNESDAY, JULY 25, 1906.

NOTICES TO MARINERS.

THE following Notices are published for general information.

CALCUTTA, the 20th July 1906.

W. A. INGLIS,
Secy. to the Govt. of Bengal.

BAY OF BENGAL—CHITTAGONG COAST.

Kurnasuli river—Depth of water found in the channels.

No. 258 (first publication).—The Port Officer, Chittagong, has given notice that the following depth of water was found in the channels by soundings taken on the 10th July and reduced to zero :—

				Ft.	In.
<i>Track No. 1—Outer bar—</i>					
Disc on diamond	...	...	...	13	6
<i>Track No. 2—Inner bar—</i>					
Disc on diamond	...	...	...	12	0
Batten beacon on pillar	...	...	...	12	0
<i>Track No. 3—</i>					
Triangle on cross and ball	...	...	...	19	0
<i>Track No. 4—Guptakhally crossing—</i>					
Tripod on diamond	...	...	...	16	0

CHINA, EAST COAST—CHUSAN ARCHIPELAGO.

Tongting island—Light-house building—Provisional light.

No. 259 (first publication).—The British Admiralty has given notice (No. 622 of 1906) that a light-house from which a light of the fourth order showing groups of four white flashes will be exhibited is in course of erection on Tongting island, Chusan Archipelago.

On or about 1st May a provisional white group occulting light, showing groups of four eclipses every thirty seconds, thus:—light, sixteen seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds, would be exhibited from the summit of the island at an

elevation of 180 feet above high water, and visible in clear weather from a distance of 10 miles, the light being of the sixth order.

A fog signal will also be established on this island.

Approximate position on chart No. 1429, lat. $29^{\circ} 51\frac{1}{2}'$ N., long. $122^{\circ} 35\frac{1}{2}'$ E.

Further Notice will be given when this light has been established.

This Notice affects the following Admiralty Charts:—Amoy to Nagasaki, No. 2412; Hong Kong to Liao tung gulf, No. 1262; Kue shan islands to the Yang tse, No. 1199; Nimrod sound to Yung river, No. 1429: Also List of Lights, Part VI, 1906, page 129; and China Sea Directory, vol. III, 1904, page 334.

AFRICA, NORTH-EAST—GULF OF ADEN.

Aden anchorage—Buoy to be established and position of Marbut shoal light-vessel to be altered.

No. 260 (first publication).—The Bombay Government has given notice (No. 71 of 1906) that on the 26th July a white Nun Buoy with a black top showing a green light at night will be moored on the following bearings:—

Clock Tower	...	...	...	$889^{\circ} 00'E$
Marbut flagstaff	...	...	...	$871^{\circ} 30'E$
Residency flagstaff	...	...	...	$834^{\circ} 00'E$
Signal staff	...	...	...	$866^{\circ} 00'E$

and that Marbut Light-Vessel will be moved $S80^{\circ} W$, a distance of 80 yards, to a position on the following bearings:—

Clock Tower	...	...	...	$N81^{\circ} 00'E$
Marbut flagstaff	...	...	...	$N85^{\circ} 00'E$
Residency flagstaff	...	...	...	$S46^{\circ} 00'E$
Signal staff	...	...	...	$S80^{\circ} 30'E$

All bearings are true.

This notice affects the following Admiralty Charts:—Gulf of Aden, Sheet II, Western portion, No. 6C; Aden and adjacent bays. Aden Anchorages, No. 7; Red Sea, Sheet V, No. 8E; and Arabian Sea, No. 1012; and Red Sea and Gulf of Aden Pilot, fifth edition, 1900, pages 349 and 350, and Supplement 1904 relating to Red Sea and Gulf of Aden Pilot, page 39; also Admiralty List of Lights, Part VI, 1906, No. 130; and Light-Houses and Light-Vessels in British India, 1905, No. 130.

BAY OF BENGAL.—BURMA COAST.

Arakan river—Outer bar shoaling.

No. 251 (second publication).—The British Admiralty has given notice (No. 592 of 1906) that there is considerably less water than shown on the chart on the outer bar of the Arakan river, in the approach to Akyab. A note to this effect has been placed on the charts.

Approximate position, lat. $20^{\circ} 3'$ N., long. $92^{\circ} 54'$ E.

This Notice affects the following Admiralty Charts:—Elephant Point to Cheduba strait, No. 821; Arakan river with plan of Akyab, No. 1884; also Bay of Bengal Pilot, 1901, page 256.

AFRICA, SOUTH—CAPE COLONY.

Immigration flag—Description and use of.

No. 252 (second publication).—The British Admiralty has given notice (No. 595 of 1906) that a yellow flag having a black ball in the centre has been adopted as the Immigration flag at all ports within the colony. This flag (hoisted at the stay) by vessels arriving in port denotes that the examination of passengers by the Immigration Officer is being carried out, and that no person not provided with a permit, or duly authorised by the Immigration Office, is, under penalty, allowed on board that vessel.

This Notice affects the following Admiralty Publications:—Africa Pilot, Part II, 1901, page 34; and Africa Pilot, Part III, 1906, page 17.

JAPAN—NAIKAI.

Akashi no seto—Wreck of a sunken vessel.

No. 253 (second publication).—The British Admiralty has given notice (No. 600 of 1906) that the wreck of a vessel lies sunk in Akashi no seto, in a position from which Yesaki light bears S. 40° W., distant 2 miles and Hira iso light S. 67° E.

Approximate position, lat. 34° 38' N., long. 135° 1' E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Akashi no seto No. 93: also Sailing Directions for Japan, &c., 1904, page 426.

CHINA, NORTH—LIAU RIVER.

Newchwang—Beacon removed in approach—Time signal altered.

No. 254 (second publication).—The British Admiralty has given notice (No. 601 of 1906) that the surveying beacon (new beacon) on the eastern bank of Liau river, formerly situated at a distance of 3 cables S. 40° E. from Nodding Tommy beacon, is no longer in existence.

Also that the time-ball at the Custom House flagstaff, Newchwang, is dropped every day at 0^h 0^m 0^s mean time of the 120° of East longitude, or 16^h 0^m 0^s G.M.T., instead of on Saturdays at 0^h 0^m 0^s Local Mean time as formerly. Further particulars in regard to this signal are not given, but it is presumed that Standard time of the 120th meridian of East longitude has been adopted at Newchwang for general use.

Approximate position, Custom House flagstaff on chart No. 2894, lat. 40° 43' 25" N., long. 122° 15' 55" E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Liau river, No. 2894: also List of Time Signals, 1904, page 78; and China Sea Directory, vol. III, 1904, pages 645, 649.

EASTERN ARCHIPELAGO—JAVA, NORTH COAST.

Batavia roads, Vader Smit shoal—Depth over.

No. 255 (second publication).—With reference to Notice to Mariners, No. 202, dated 7th June 1906, issued by this office, the British Admiralty has given further notice (No. 614 of 1906) that the undermentioned coral shoals in Batavia roads are believed to be identical with Vader Smit shoal, which is shown on the chart as having a depth of 3 fathoms over it:—

- (a) The shoal, about 65 yards in extent, with a depth of 7 feet over it, situated in approximately lat. 6° 4' 0" S., long. 106° 51' 15" E.
- (b) The shoal, about 45 yards in extent, with a depth of 11 feet, situated in approximately lat. 6° 4' 5" S., long. 106° 51' 5" E.

The 3-fathom patch has therefore been erased from the Admiralty chart.

Approximate position, lat. 6° 4' S., long. 106° 51' E.

This Notice affects the following Admiralty Charts:—Sunda strait, No. 2056; Batavia road, No. 933: also Eastern Archipelago, Part II, 1904, pages 88, 89.

INDIA, WEST—BOMBAY (GOA) COAST.

Aguada light—Character altered.

No. 256 (second publication).—The British Admiralty has given notice (No. 615 of 1906) that the character of the light at Aguada fort, Goa, would be altered from white fixed to white group flashing, showing groups of three flashes every ten seconds, thus:—flash, half a second; eclipse, one and-a-half seconds; flash, half a second; eclipse, one and-a-half seconds; flash half a second; eclipse, five and-a-half seconds: it would be visible in clear weather from a distance of 23 miles.

Approximate position, lat. 15° 29½' N., long. 73° 46' E.

This Notice affects the following Admiralty Charts:—Indian Ocean, No. 748b; Karachi to Vengurla, No. 826; Vengurla to cape Comorin, No. 827; Vixiadrug to Cobbin, No. 2737; Achra river to cape Ramas, No. 740; Murmagao and Goa roadsteads, No. 492: also List of Lights, Part VI, 1906, No. 257; and West Coast of Hindustan Pilot, 1898, page 164.

CHINA SEA—SOUTHERN PORTION.

St. Esprit islands—Non-existence of discoloured water south-westward.

No. 257 (second publication).—The British Admiralty has given notice (No. 616 of 1906) that a careful examination has been made of the area in the neighbourhood of the position, where discoloured water was reported to have been seen, about 25 miles to the south-westward of St. Esprit islands without finding any indication of dangers.

As this discoloured water was merely observed by the Master of the German ship *Rebecca* in 1875 without any means being taken to ascertain if it was shoal water or not, the words "Discoloured water" have been erased from the charts.

Approximate position, lat. $0^{\circ} 30' N.$, long. $106^{\circ} 38' E.$

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941a; *China Sea*, No. 2660a; also *China Sea Directory*, vol. II, 1899, page 49.

ST. L. S. WARDEN, COMMDR., R.I.M.,
Port Officer of Calcutta.

The 13th July 1906.

INDIA, WEST—BOMBAY COAST.

Bombay harbour—Ballard Pier extension works—Buoy removed.

No. 246 (third publication).—With reference to Notice to Mariners No. 244, dated 28th June 1906, issued by this office, the Bombay Government has given further notice (No. 68 of 1906) that the obstruction at the Ballard Pier extension works has now been raised and the buoy marking it removed.

This Notice affects Admiralty Chart:—*Port of Bombay*, No. 656; also *West Coast of Hindustan Pilot*, 4th Edition, 1898, page 201; and *Supplement 1903*, page 15.

EASTERN ARCHIPELAGO—JAVA—MADURA STRAIT.

Meinderts reef intended light—Amended description.

No. 247 (third publication).—With reference to Notice to Mariners No. 159, dated 12th May 1906, issued by this office, the British Admiralty has given further notice (No. 563 of 1906) that the period of system of the intended *white occulting* light on Meinderts reef will be *ten seconds*, thus:—light, *five seconds*, eclipse, *five seconds*, and not *twenty seconds* as previously announced.

Approximate position, lat. $7^{\circ} 40\frac{1}{2}' S.$, long. $114^{\circ} 26' E.$

Further Notice will be given.

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941b; *Java island*, No. 1654; also *List of Lights*, Part VI, 1906, No. 506; and *Eastern Archipelago*, Part II, 1904, page 140.

CHINA—CANTON RIVER—BOCA TIGRIS.

Chain rock—Light intended.

No. 248 (third publication).—The British Admiralty has given notice (No. 575 of 1906) that the Chinese Government intend, probably during next September, to exhibit a *red fixed* dioptric light of the 6th order, elevated 33 feet above high water, and visible from a distance of 7 miles, from a red brick tower, 30 feet high, surmounted by a pedestal lantern now in course of erection on Chain rock, Boca Tigris, Canton river.

Approximate position, lat. $22^{\circ} 47\frac{1}{2}' N.$, long. $113^{\circ} 37\frac{1}{2}' E.$

Further Notice will be given when received.

This Notice affects the following Admiralty Charts:—*Canton river*, No. 2562; *Lintin bar to Tiger island*, No. 1741; also *List of Lights*, Part VI, 1906, page 123; and *China Sea Directory*, vol. III, 1904, page 92.

PACIFIC OCEAN—ELLICE GROUP.

Nanomana island—Bank reported northward.

No. 249 (third publication).—The British Admiralty has given notice (No. 586 of 1906) of the existence of a bank, with a depth of 7 fathoms over it, situated at a distance of 2 miles N. 3° E. from the north point of Nanomana island, Ellise islands. This bank, on which rollers were observed, is about half a mile long in a north-easterly and south-westerly direction and two cables broad. It has been placed on the charts in approximately lat. 6° 15½' S., long. 176° 20½' E., and marked P.D.

(Variation 9° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Ellise islands to Phoenix islands*, No. 1830; *plan of Nanomana island* on chart No. 766: Also *Pacific Islands*, vol. II, 1900, page 260.

CEYLON, WEST COAST—COLOMBO.

Standard time adopted—Alteration in time of making Time Signal.

No. 250 (third publication).—The British Admiralty has given notice (No. 587 of 1906) that Standard time of India, that is of the meridian of 82° 30' East longitude, has been adopted in Ceylon; the time signal at the Harbour Master's Office at Colombo will therefore in future be made at 4^h 15^m 0^s and at 20^h 15^m 0^s Standard Mean time, corresponding respectively to 22^h 45^m 0^s and 14^h 45^m 0^s Greenwich Mean time. In other respects this time signal is made as described in the Admiralty List of Time Signals, 1904, No. 28.

Approximate position, lat. 6° 56' 34" N., long. 79° 50' 34" E.

This Notice affects the following Admiralty Charts:—*Ceylon, south coast*, No. 813; *Colombo harbour*, No. 914: Also *List of Time Signals*, 1904, page 18, No. 28; *West Coast of Hindustan Pilot*, 1898, page 98; *Supplement*, 1903, page 5; *Bay of Bengal Pilot*, 1901, page 75; and *Supplement*, 1903, page 2.

The 6th July 1906.

A. S. BALFOUR, LIEUT., R.I.M.,
Port Officer of Calcutta.
pro. tem.



APPENDIX TO
The Calcutta Gazette.

WEDNESDAY, AUGUST 1, 1906.

NOTICES TO MARINERS.

The following Notices are published for general information.

CALCUTTA, the 25th July 1906.

W. A. INGLIS,
Secy. to the Govt. of Bengal.

INDIA, WEST—BOMBAY COAST.

Caution—A sunken pilot-schooner near the Outer light-vessel.

No. 261 (first publication).—A telegraphic communication has been received from the Port Officer, Bombay, stating that one of the pilot's schooners lies sunk about N.-W. of the Outer light-vessel, distant half-a-mile; masts visible at low water. Mariners are hereby warned.

The 25th July 1906.

AUSTRALIA, WEST—FREMANTLE APPROACH.

Rottneest island—Fog explosive established.

No. 262 (first publication).—The British Admiralty has given notice (No 641 of 1906) that, on and after 1st June 1906, a fog-explosive signal, giving during thick or foggy weather one report every fifteen minutes, would be established near the centre of Rottneest island.

Approximate position, lat. $32^{\circ} 0' S.$, long. $115^{\circ} 31' E.$

NOTE.—The cautionary remarks respecting fog signals given in the introductory remarks to all parts of the Admiralty Lists of Lights should be carefully studied.

This Notice affects the following Admiralty Charts:—Campion bay to cape Naturaliste, No. 1033; Rottneest island to Warnbro' sound, No. 1058; also List of Lights, Part VI, 1906, No. 1195; and Australia Directory, Vol. III, 1905, page 309.

JAPAN, SOUTH COAST—GULF OF TOKIO ENTRANCE.

Uraga channel—Buoy marking submarine mines.

No. 263 (first publication).—The British Admiralty has given Notice (No. 646 of 1906) that a white cylindrical buoy has been moored at a distance of $5\frac{1}{8}$ cables S. $60^{\circ} E.$ from Ashika jima beacon to mark the outer end of a number of mines which have been submerged for experiment in Uraga channel.

Approximate position, lat. $35^{\circ} 12\frac{1}{2}' N.$, long. $139^{\circ} 44' E.$

The mines will remain in position until January 1907, and Mariners are warned that they should on no account attempt to pass westward of the buoy marking them.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Gulf of Tokyo, No. 2657; Also, Sailing Directions for Japan, &c., 1904, pages 364, 369.

KOREA, WEST COAST—SALER RIVER APPROACH.

Toku somu (Baker island)—Light-house construction.

No. 264 (first publication).—The British Admiralty has given Notice (No. 647 of 1906) that a lighthouse is under construction on Toku somu (Baker island).

Approximate position, lat. $36^{\circ} 39' N.$, long. $126^{\circ} 0\frac{1}{2}' E.$

This Notice affects the following Admiralty Charts:—Makau group to Clifford islands, No. 913; approaches to Seoul, No. 1258; Also, List of Lights, part VI., 1906, No. 916; and Sailing Directions for Korea, &c., 1904, page 51.

KOREA, SOUTH COAST.

Uto (Beaufort island)—Ari somu (Sentinel island), and Uru Saki.—Lights established.

No. 265 (first publication).—The British Admiralty has given notice (No. 648 of 1906) that the undermentioned lights have been established off the south coast of Korea, in the following positions:—

UTO OR BEAUFORT ISLAND.

A white fixed light (unwatched), elevated 442 feet above high water, and visible in clear weather from a distance of 8 miles from the bearing of $S. 66^{\circ} E.$, through south and west, to $N. 19^{\circ} E.$, has been established in a white wooden building, 20 feet high, erected on the eastern end of the island.

Approximate position, lat. $33^{\circ} 29\frac{1}{2}' N.$, long. $126^{\circ} 58' E.$

ARI SOMU OR SENTINEL ISLAND.

A white fixed light, elevated 382 feet above high water, has been established in a white wooden building, 32 feet high, erected on the summit of Ari somu.

Approximate position lat. $34^{\circ} 32\frac{1}{2}' N.$, long. $128^{\circ} 44' E.$

URU SAKI, north-east point of Commemoration bay.

A white fixed light (unwatched), elevated 97 feet above high water, and visible in clear weather from a distance of 8 miles from the bearing of $S. 15^{\circ} W.$, through west and north, to $N. 50^{\circ} E.$, has been established in a white wooden building erected on Uru saki, north-east point of cape Tikmenev.

It has been placed on the chart in approximately lat. $35^{\circ} 30' N.$, long. $129^{\circ} 30\frac{1}{2}' E.$, and the position marked Uru saki.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Nipon, Kiusiu, &c., No. 2347; Shang-tung to Nagasaki, No. 3480; Korean archipelago, No. 104; Western coasts of Kiusiu, &c., No. 358; Also, List of lights, part VI, 1906, pages 151, 153; and Sailing Directions for Japan Korea, &c., 1904, pages 89, 104 130.

KOREA, EAST COAST—GENSAN.

Korumappo (Muraveva Point)—Light established.

No. 266 (first publication).—The British Admiralty has given notice (No. 649 of 1906) that a red fixed light elevated 187 feet above high water and visible from the bearing of $N 27^{\circ} E.$, through east and south, to $N. 62^{\circ} W.$, has been established in a white wooden building, 20 feet high, erected on the high land of Korumappo or Muraveva Point in the approach to Gensan.

Approximate position, lat. $39^{\circ} 12\frac{1}{2}' N.$, long. $127^{\circ} 28\frac{1}{2}' E.$

(Variation 5° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Cape Duroch to Linden Point, No. 1316; port Lazaref, No. 3037; also List of Lights, Part VI, 1906, page 153, and Sailing Directions for Japan and Korea, &c., 1904, page 136.

AUSTRALIA, EAST COAST—QUEENSLAND.

Brisbane river—Quarries Reach channel—Altered lights and buoys moved.

No. 267 (first publication).—The British Admiralty has given notice (No. 653 of 1906) that on and after June 19th the newly-dredged channel through Quarries reach would be open, the Hamilton reach channel having been extended to the eastward to connect with it.

The leading beacons used for the old channel would be moved to suit the new channel, those formerly situated at a distance of $2\frac{1}{2}$ cables westward from Colmelie pontoon head being shifted $2\frac{3}{8}$ cables S. 66° E. from their former positions, their relative positions being altered to suit the direction of the new channel, viz., S. 67° W and N. 67° E. from each other; these two beacons or their lights in line S. 67° W. lead through the newly-dredged channel.

Leading beacons will also be established, one on Eagle Farm flats training wall at a distance of $1\frac{1}{2}$ cables N. 14° W. from Bridge Point, and a rear beacon approximately 4 cables No. 67° E. from the front beacon, to assist in passing through the new Quarries reach channel.

These two beacons in line N. 67° E. lead through the new channel.

The red buoy formerly marking the turning point of the Hamilton reach channel and Quarries reach old channel will be moored $2\frac{1}{2}$ cables S. 80° E. to mark the turning point in the new channel.

Approximate position, Colmelie pontoon, lat. $27^{\circ} 27'$ S., long $153^{\circ} 5'$ E.

The positions of the above beacons and buoy are approximate, their exact positions not having been given.

(Variation 9° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—Brisbane river, No. 1674; also List of Lights, Part VI, 1906, page 283, No. 1434, Australia Directory, vol. II, 1898, pages 141, 142; and Supplement, 1900, page 7.

CHINA—YANG TSE KIANG, NORTH CHANNEL.

Drinkwater Point—Light and light-buoy to be replaced by light-vessel.

No. 268 (first publication).—The British Admiralty has given notice (No. 654 of 1906) that the Chinese Government intend, probably on July 1st next, to establish a light-vessel (without a crew), exhibiting a white occulting dioptric light every ten seconds, thus:—light, five seconds; eclipse, five seconds, in a position about 3 miles N. 88° W., from Drinkwater Point light and bell-buoy; the light, which will be of the 4th order, will be elevated 35 feet above the sea, and visible in clear weather from a distance of 11 miles; the vessel will be iron and painted red, having an iron column surmounted by a lantern. A bell, rung by the motion of the vessel, will be suspended on board.

Approximate position, lat. $34^{\circ} 24\frac{1}{2}'$ N., long. $121^{\circ} 56\frac{1}{2}'$ E.

On the establishment of the above light-vessel, the white group flashing light on Drinkwater Point, and Drinkwater Point light and bell-buoy will be discontinued.

Further Notice will be given.

(Variation 2° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Kueshan islands to Yang tse Kiang, No. 1199; approaches to the Yang tse Kiang, No. 1602; also List of Lights, Part VI, 1906, page 133, No. 813; and China Sea Directory, vol. III, 1904, page 402.

The 27th July 1906.

BAY OF BENGAL—CHITTAGONG COAST.

Kurnafuli river—Depth of water found in the channels.

No. 258 (second publication).—The Port Officer, Chittagong, has given notice that the following depth of water was found in the channels by soundings taken on the 10th July and reduced to zero:—

					FT. IN.
Track No. 1—Outer bar—					
Disc on diamond	...	...	...	...	13 6
Track No. 2—Inner bar—					
Disc on diamond	...	...	...	...	12 0
Batten beacon on pillar	...	...	...	...	12 0
Track No. 3—					
Triangle on cross and ball	...	...	...	...	19 0
Track No. 4—Guptakhally crossing—					
Tripod on diamond	...	...	...	...	16 0

CHINA, EAST COAST—CHUSAN ARCHIPELAGO.

Tongting island—Light-house building—Provisional light.

No. 259 (second publication).—The British Admiralty has given notice (No. 622 of 1906) that a light-house from which a light of the fourth order showing groups of four white flashes will be exhibited is in course of erection on Tongting island, Chusan Archipelago.

On or about 1st May a provisional white group occulting light, showing groups of four eclipses every thirty seconds, thus:—light, sixteen seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds, would be exhibited from the summit of the island at an elevation of 180 feet above high water, and visible in clear weather from a distance of 10 miles, the light being of the sixth order.

A fog signal will also be established on this island.

Approximate position on chart No. 1429, lat. $29^{\circ} 51\frac{1}{2}'$ N., long. $122^{\circ} 35\frac{1}{2}'$ E.

Further Notice will be given when this light has been established.

This Notice affects the following Admiralty Charts:—Amoy to Nagasaki, No. 2412; Hong Kong to Liao tung gulf, No. 1262; Kue shan islands to the Yang tse, No. 1199; Nimrod sound to Yung river, No. 1429; Also List of Lights, Part VI, 1906, page 129; and China Sea Directory, vol. III, 1904, page 534.

AFRICA, NORTH-EAST—GULF OF ADEN.

Aden anchorage—Buoy to be established and position of Marbut shoal light-vessel to be altered.

No. 260 (second publication).—The Bombay Government has given notice (No. 71 of 1906) that on the 26th July a white Nun Buoy with a black top showing a green light at night will be moored on the following bearings:—

Clock Tower	...	...	...	S89° 00E
Marbut flagstaff	...	...	...	S71° 30E
Residency flagstaff	...	...	...	S84° 00E
Signal staff	...	...	...	S66° 0'E

and that Marbut Light-Vessel will be moved S80° W, a distance of 80 yards, to a position on the following bearings:—

Clock Tower	...	...	...	N81° 00E
Marbut flagstaff	...	...	...	N85° 00E
Residency flagstaff	...	...	...	S46° 00E
Signal staff	...	...	...	S80° 30E

All bearings are true.

This notice affects the following Admiralty Charts:—Gulf of Aden, Sheet II, Western portion, No. 6C; Aden and adjacent bays. Aden Anchorage, No. 7; Red Sea, Sheet V, No. 8E; and Arabian Sea, No. 1012; and Red Sea and Gulf of Aden Pilot, fifth edition, 1900, pages 349 and 350, and Supplement 1904 relating to Red Sea and Gulf of Aden Pilot, page 39; also Admiralty List of Lights, Part VI, 1906, No. 130; and Light-Houses and Light-Vessels in British India, 1905, No. 130.

BAY OF BENGAL—BURMA COAST.

Arakan river—Outer bar shoaling.

No. 251 (third publication).—The British Admiralty has given notice (No. 592 of 1906) that there is considerably less water than shown on the chart on the outer bar of the Arakan river, in the approach to Akyab. A note to this effect has been placed on the charts.

Approximate position, lat. $20^{\circ} 3'$ N., long. $92^{\circ} 54'$ E.

This Notice affects the following Admiralty Charts:—Elephant Point to Chetuba strait, No. 821; Arakan river with plan of Akyab, No. 1884; also Bay of Bengal Pilot, 1901, page 256.

AFRICA, SOUTH—CAPE COLONY.

Immigration flag—Description and use of.

No. 252 (third publication).—The British Admiralty has given notice (No. 595 of 1906) that a yellow flag having a black ball in the centre has been adopted as the Immigration flag at all ports within the colony. This flag (hoisted at the stay) by vessels arriving in port denotes that the examination of passengers by the Immigration Officer is being carried out, and that no person not provided with a permit, or duly authorised by the Immigration Office, is, under penalty, allowed on board that vessel.

This Notice affects the following Admiralty Publications:—*Africa Pilot, Part II, 1901, page 34; and Africa Pilot, Part III, 1906, page 17.*

JAPAN—NAIKAI.

Akashi no seto—Wreck of a sunken vessel.

No. 253 (third publication).—The British Admiralty has given notice (No. 600 of 1906) that the wreck of a vessel lies sunk in Akashi no seto, in a position from which Yesaki light bears S. 40° W., distant 2 miles and Hira iso light S. 67° E.

Approximate position, lat. 34° 38' N., long. 135° 1' E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*Akashi no seto No. 93: also Sailing Directions for Japan, &c., 1904, page 426.*

CHINA, NORTH—LIAU RIVER.

Newchwang—Beacon removed in approach—Time signal altered.

No. 254 (third publication).—The British Admiralty has given notice (No. 601 of 1906) that the surveying beacon (new beacon) on the eastern bank of Liau river, formerly situated at a distance of 3 cables S. 40° E. from Nodding Tommy beacon, is no longer in existence.

Also that the time-ball at the Custom House flagstaff, Newchwang, is dropped every day at 0^h 0^m 0^s mean time of the 120° of East longitude, or 16^h 0^m 0^s G.M.T., instead of on Saturdays at 0^h 0^m 0^s Local Mean time as formerly. Further particulars in regard to this signal are not given, but it is presumed that Standard time of the 120th meridian of East longitude has been adopted at Newchwang for general use.

Approximate position, Custom House flagstaff on chart No. 2894, lat. 40° 43' 25" N., long. 122° 15' 55" E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*Liau river, No. 2894: also List of Time Signals, 1904, page 78; and China Sea Directory, vol. III, 1904, pages 645, 649.*

EASTERN ARCHIPELAGO—JAVA, NORTH COAST.

Batavia roads, Vader Smit shoal—Depth over.

No. 255 (third publication).—With reference to Notice to Mariners, No. 202, dated 7th June 1906, issued by this office, the British Admiralty has given further notice (No. 614 of 1906) that the undermentioned coral shoals in Batavia roads are believed to be identical with Vader Smit shoal, which is shown on the chart as having a depth of 3 fathoms over it:—

(a) The shoal, about 65 yards in extent, with a depth of 7 feet over it, situated in approximately lat. 6° 4' 0" S., long. 106° 51' 15" E.

(b) The shoal, about 45 yards in extent, with a depth of 11 feet, situated in approximately lat. 6° 4' 5" S., long. 106° 51' 5" E.

The 3-fathom patch has therefore been erased from the Admiralty chart.

Approximate position, lat. 6° 4' S., long. 106° 51' E.

This Notice affects the following Admiralty Charts:—*Sunda strait, No. 2056; Batavia road, No. 933: also Eastern Archipelago, Part II, 1904, pages 88, 89.*

INDIA, WEST—BOMBAY (GOA) COAST.

Aguada light—Character altered.

No. 256 (third publication).—The British Admiralty has given notice (No. 615 of 1906) that the character of the light at Aguada fort, Goa, would be altered from *white fixed* to *white group flashing*, showing groups of three flashes every ten seconds, thus:—flash, half a second; eclipse, one and-a-half seconds; flash, half a second; eclipse, one and-a-half seconds; flash half a second; eclipse, five and-a-half seconds: it would be visible in clear weather from a distance of 23 miles.

Approximate position, lat. $15^{\circ} 29\frac{1}{2}'$ N., long. $73^{\circ} 46'$ E.

This Notice affects the following Admiralty Charts:—*Indian Ocean*, No. 748b; *Karachi to Vengurla*, No. 826; *Vengurla to cape Comorin*, No. 827; *Viziadrug to Cobhin*, No. 2757; *Achra river to cape Ramas*, No. 740; *Murmagao and Goa roadsteads*, No. 492; also *List of Lights*, Part VI, 1906, No. 257; and *West Coast of Hindustan Pilot*, 1898, page 164.

CHINA SEA—SOUTHERN PORTION.

St. Esprit islands—Non-existence of discoloured water south-westward.

No. 257 (third publication).—The British Admiralty has given notice (No. 616 of 1906) that a careful examination has been made of the area in the neighbourhood of the position, where discoloured water was reported to have been seen, about 25 miles to the south-westward of St. Esprit islands without finding any indication of dangers.

As this discoloured water was merely observed by the Master of the German ship *Rebecca* in 1875 without any means being taken to ascertain if it was shoal water or not, the words "Discoloured water" have been erased from the charts.

Approximate position, lat. $0^{\circ} 30'$ N., long. $106^{\circ} 38'$ E.

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941a; *China Sea*, No. 2660a; also *China Sea Directory*, vol. II, 1899, page 49.

ST. L. S. WARDEN, COMMDR., R.I.M.,
Port Officer of Calcutta.

The 13th July 1906.



APPENDIX TO
The Calcutta Gazette.

WEDNESDAY, AUGUST 8, 1906.

NOTICES TO MARINERS.

THE following Notices are published for general information.

CALCUTTA, the 3rd August 1906.

W. A. INGLIS,
Secy. to the Govt. of Bengal.

INDIA, WEST—BOMBAY COAST.

Bankote Outer buoy adrift.

No. 269 (first publication).—The Bombay Government has given notice (No. 72 of 1906) that the Bankote outer buoy broke adrift from its moorings on the 23rd ultimo and was washed ashore at Velas, which is a village close to Bankote.

INDIAN OCEAN—MADAGASCAR—DIEGO SUAREZ BAY.

Antsirana light—Sectors established.

No. 270 (first publication).—The British Admiralty has given notice (No. 673 of 1906) that on 1st January last the red fixed light on Antsirana jetty, Diego Suarez bay, was altered to show the following sectors:—red from the bearing of S. 64° W. to S. 54° W., white from S. 54° W. to S. 47° W., green from S. 47° W. to S. 34° W., white from S. 34° W., through south and east, to N. 56° E., green from N. 56° E. to N. 7° E., being obscured in other directions; it is elevated 29 feet above high water.

Approximate position, lat. 12° 16' S., long. 49° 18' E.

(Variation 7° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Diego Suarez bay, No. 1116; plan of Port Nièvre on chart No. 1064; Also List of Lights, Part VI, 1906, No. 102, and Islands in the Southern Indian Ocean, 1904, page 62.

EASTERN ARCHIPELAGO—BORNEO, WEST COAST.

Pontianak river—Prohibited anchorage in approach marked by buoys and beacons.

No. 271 (first publication).—The British Admiralty has given notice (No. 678 of 1906) that anchorage is prohibited on account of telegraph cables in the approach to the Pontianak river, within the limits which are defined by imaginary lines drawn between two buoys now established and the shore:—

Southern buoy—

- (1) A white can buoy, marked "Telegraaf Kabel No. 1," has been moored in a position about 3 miles from the coast in approximately lat. $0^{\circ} 1' 25''$ S., long. $109^{\circ} 6' 25''$ E.

Northern buoy—

- (2) A white can buoy, marked "Telegraaf Kabel No. 2," has been moored about 2 cables N. 16° E. from the above buoy.

The limits are also marked by beacons on shore, but the position of the beacons is not given.

This Notice affects the following Admiralty Chart:—*Eastern Archipelago*, No. 941a: Also *China Sea Directory*, vol. 11, 1899, page 39; and Supplement, 1901, page 3.

EASTERN ARCHIPELAGO—BORNEO, EAST COAST.

Balik Papan bay—Lights of prohibited anchorage altered—Buoy shifted.

No. 272 (first publication).—With reference to Notice to Mariners No. 35, dated 24th February 1905, issued by this office, the British Admiralty has given further notice (No. 679 of 1906) that the southern limit of the prohibited anchorage in Balik Papan bay has been altered so that it is now limited by a line extending S. 20° W. from the southern point of Tokong island to No. 4 buoy in the fairway. No. 4 buoy has therefore been replaced by the black buoy formerly situated at a distance of 13 cables S. 88° W. from the south point of Tokong. The northern limit is now a line drawn from the cable-house to the black buoy situated $14\frac{1}{2}$ cables N. 80° W. from the south point of Tokong island.

Approximate position, Tokong, lat. $1^{\circ} 16'$ S., long. $116^{\circ} 48'$ E.

(Variation 2° Westerly in 1906.)

This Notice affects the following Admiralty Plans:—*Balik Papan bay and anchorage off the East point of Balik Papan bay* on No. 3031: Also *Eastern Archipelago*, Part II, 1904, page 290.

PACIFIC OCEAN, SOUTH—TUAMOTO ARCHIPELAGO—TAKARAVA ATOLL.

Rotoava approach—Temporary beacons erected.

No. 273 (first publication).—With reference to Notice to Mariners No. 231, dated 26th June 1906, issued by this office, the British Admiralty has given further notice (No. 681 of 1906) that the beacon on the western point of the entrance to North passage, and other beacons in the approach to Rotoava having been destroyed by a cyclone, the following temporary beacons have been erected in the undermentioned positions:—

- (a) Three white beacons on Poniu, near the entrance to the North passage; vessels must pass to the southward of these beacons.
- (b) A white beacon on Togamaitu i tai, Togamaitu i uta, Tapaeroa, and Kopoapiro shoals.
- (c) A white beacon surmounted by a ball, on the shoal situated at a distance of $1\frac{1}{2}$ miles S. 58° W. from Rotoava light.
- (d) A white beacon on the shoal situated about $7\frac{1}{2}$ cables S. 16° W. from Rotoava light.

Approximate position, Rotoava light, lat. $16^{\circ} 2\frac{1}{2}'$ S., long. $145^{\circ} 38\frac{1}{2}'$ W.

Mariners are warned that great care must be exercised in navigating these waters.

(Variation 8° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—*Plan of Rotoava* on chart No. 1175: Also *Pacific Islands*, vol. 111, 1900, pages 133, 134; and Supplement, 1903, page 9.

FOG SIGNALS—ADMIRALTY LISTS OF LIGHTS.

Cautionary Notices.

No. 274 (*first publication*).—The following Notice to Mariners, issued by the British Admiralty (No. 682 of 1906), is republished for general information:—

As the cautionary Notices respecting fog-signals given in the Introductory notes in all copies of the Admiralty Lists of Lights do not appear to be quite understood, more especially the paragraphs pointing out that such signals are heard at greatly varying distances, and that there are occasionally areas around a fog-signal station in which the fog-signal is wholly inaudible, it is thought desirable to point out to seamen that not infrequently a fog-signal, which may be heard under favourable circumstances from a distance of 10 miles or upwards, is inaudible when only 2 or 3 miles off it, and that no surprise should be felt if, from a vessel, either at anchor, or underway, not far from a fog-signal station, the sound of the fog-signal is not heard on board.

CHINA, SOUTH COAST—HONG HAI BAY.

Sam Chau inlet—Outer bank extending—Leading beacons removed.

No. 275 (*first publication*).—The British Admiralty has given notice (No. 689 of 1906) that information has been received that soundings taken by the Chinese Revenue schooner *Peng lei*, on the 7th April 1906, show that the Outer bank in Sam Chau inlet is extending to the southward and westward. The channel is now not more than one cable in width, and is stated to have a depth of 31 feet at low water.

The leading beacons have been removed.

This inlet should not be entered without a previous examination of the entrance.

Approximate position, Outer bank, lat. $22^{\circ} 41' N.$, long. $114^{\circ} 59' E.$

This Notice affects the following Admiralty Chart:—*Sam Chau inlet*, No. 3459: Also *China Sea Directory*, vol. III, 1904, page 137.

EASTERN ARCHIPELAGO—SUMATRA, NORTH-EAST COAST.

Straits of Durian and Berhala—Light buoys established.

No. 276 (*first publication*).—With reference to Notice to Mariners No. 232, dated 26th June 1906, issued by this office, the British Admiralty has given further notice (No. 692 of 1906) that, on 19th and 18th of May 1906, respectively, the undermentioned light-buoys were established in the straits of Durian and Berhala in the following positions:—

- (a) STRAIT OF DURIAN. A light-buoy, painted white, exhibiting a *white occulting light every twenty seconds*, thus:—light, *ten seconds*; eclipse, *ten seconds*; on the north-eastern side of Richardson reef.

Approximate position, lat. $0^{\circ} 37\frac{1}{2}' N.$, long. $103^{\circ} 41' E.$

- (b) BERHALA STRAIT. A light-buoy, painted in red and black horizontal bands, exhibiting a *white occulting light every twenty seconds*, thus:—light, *ten seconds*; eclipse, *ten seconds*, on the south-eastern side of Speke rock.

Approximate position, lat. $0^{\circ} 37' S$, long. $104^{\circ} 6' E.$

This Notice affects the following Admiralty Charts:—*Banka strait to Singapore*, No. 2757; *strait of Durian*, No. 2402; *channels between Sumatra and Linga*, No. 1789: Also *China Sea Directory*, vol. I, 1896, pages 557, 546; and Supplement, 1899, page 41.

CHINA, SOUTH-EAST COAST—PAGODA ISLAND.

Tongsang harbour—Shoal reported in entrance to—

No. 277 (*first publication*).—The British Admiralty has given notice (No. 696 of 1906) that the Master of S.S. *Yunnan* reports that his vessel struck on a shoal, with a depth of 14 feet over it at low-water spring tides, in entrance to Tongsang harbour, in a position 2 miles south from the pagoda on Pagoda island. A sounding of 8 fathoms was obtained immediately before striking.

Approximate position, lat. $23^{\circ} 42' N.$, long. $117^{\circ} 32\frac{1}{2}' E.$

(Variation nil in 1906.)

This Notice affects the following Admiralty Charts:—*Formosa island, &c.*, No. 1968; *The Brothers to Ocksen islands*, No. 1760; *Tongsang harbour*, No. 1958: Also *China Sea Directory*, vol. III, 1904, page 162.

PACIFIC OCEAN—PHILIPPINE ISLANDS—NEGROS AND LEITE.

Dumaguete and Kanigao islands—Lights established.

No. 278 (first publication).—The British Admiralty has given notice (No. 699 of 1906) that lights have been established at the undermentioned places in the Philippine islands:—

- (a) DUMAGUETE, NEGROS ISLAND. A red fixed light, elevated 38 feet above high water, visible in clear weather from a distance of 7 miles, from the bearing of S. 27° W., through west, to N. 15° W., and exhibited from a white framework tower, 34 feet high, erected near the beach at Dumaguete.

Approximate position, lat. 9° 18½' N., long. 123° 17½' E.

- (b) KANIGAO ISLAND, LEITE ISLAND. A red fixed light, elevated 62 feet above high water, visible in clear weather from a distance of 9 miles, and exhibited from a white framework tower, 52 feet high, erected on the north-eastern point of Kanigao island.

Approximate position, lat. 10° 15' N., long. 124° 44½' E.

The positions refer to chart No. 2578.

(Variation 1° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—The Philippine islands, No. 943; Sulu or Mindoro sea, No. 2578; Also List of Lights, Part VI, 1906, pages 101, 103; Eastern Archipelago, Part I, 1902, pages 274, 290; and Supplement, 190, page 20.

INDIA, WEST—BOMBAY COAST.

Caution—A sunken pilot-schooner near the Outer light-vessel.

No. 261 (second publication).—A telegraphic communication has been received from the Port Officer, Bombay, stating that one of the pilot's schooners lies sunk about N.-W. of the Outer light-vessel, distant half-a-mile; masts visible at low water. Mariners are hereby warned.

The 25th July 1906.

AUSTRALIA, WEST—FREMANTLE APPROACH.

Rottneest island—Fog explosive established.

No. 262 (second publication).—The British Admiralty has given notice (No. 641 of 1906) that, on and after 1st June 1906, a fog-explosive signal, giving during thick or foggy weather one report every fifteen minutes, would be established near the centre of Rottneest island.

Approximate position, lat. 32° 0' S., long. 115° 31' E.

NOTE.—The cautionary remarks respecting fog signals given in the introductory remarks to all parts of the Admiralty Lists of Lights should be carefully studied.

This Notice affects the following Admiralty Charts:—Campion bay to cape Naturaliste, No. 1033; Rottneest island to Warnbro' sound, No. 1058; also List of Lights, Part VI, 1906, No. 1195; and Australia Directory, Vol. III, 1905, page 309.

JAPAN, SOUTH COAST—GULF OF TOKIO ENTRANCE.

Uruga channel—Buoy marking submarine mines.

No. 263 (second publication).—The British Admiralty has given Notice (No. 646 of 1906) that a white cylindrical buoy has been moored at a distance of 5½ cables S. 60° E. from Ashika jima beacon to mark the outer end of a number of mines which have been submerged for experiment in Uruga channel.

Approximate position, lat. 35° 12½' N., long. 139° 44' E.

The mines will remain in position until January 1907, and Mariners are warned that they should on no account attempt to pass westward of the buoy marking them.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Gulf of Tokyo, No. 2657; Also, Sailing Directions for Japan, &c., 1904, pages 364, 369.

KOREA, WEST COAST—SALER RIVER APPROACH.

Toku somu (Baker island)—Light-house construction.

No. 264 (second publication).—The British Admiralty has given Notice (No. 647 of 1906) that a lighthouse is under construction on Toku somu (Baker island).

Approximate position, lat. $36^{\circ} 39' N.$, long. $126^{\circ} 0\frac{1}{2}' E.$

This Notice affects the following Admiralty Charts:—*Makau group to Olifford islands*, No. 913; *approaches to Seoul*, No. 1358; *Also, List of Lights, part VI., 1906, No. 916; and Sailing Directions for Korea, &c., 1904, page 61.*

KOREA, SOUTH COAST.

Uto (Beaufort island)—Ari somu (Sentinel island), and Uru Saki.—Lights established.

No. 265 (second publication).—The British Admiralty has given notice (No. 648 of 1906) that the undermentioned lights have been established off the south coast of Korea, in the following positions:—

UTO OR BEAUFORT ISLAND.

A *white fixed* light (unwatched), elevated 442 feet above high water, and visible in clear weather from a distance of 8 miles from the bearing of $S. 66^{\circ} E.$, through south and west, to $N. 19^{\circ} E.$, has been established in a white wooden building, 20 feet high, erected on the eastern end of the island.

Approximate position, lat. $33^{\circ} 29\frac{1}{2}' N.$, long. $126^{\circ} 58' E.$

ARI SOMU OR SENTINEL ISLAND.

A *white fixed* light, elevated 382 feet above high water, has been established in a white wooden building, 32 feet high, erected on the summit of Ari somu.

Approximate position lat. $34^{\circ} 32\frac{1}{2}' N.$, long. $128^{\circ} 44' E.$

URU SAKI, north-east point of Commemoration bay.

A *white fixed* light (unwatched), elevated 97 feet above high water, and visible in clear weather from a distance of 8 miles from the bearing of $S. 16^{\circ} W.$, through west and north, to $N. 50^{\circ} E.$, has been established in a white wooden building erected on Uru saki, north-east point of cape Tikmenev.

It has been placed on the chart in approximately lat. $35^{\circ} 30' N.$, long. $129^{\circ} 30\frac{1}{2}' E.$, and the position marked Uru saki.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Nipon, Kiusiu, &c.*, No. 2347; *Shantung to Nagasaki*, No. 3480; *Korean archipelago*, No. 104; *Western coasts of Kiusiu, &c.*, No. 358; *Also, List of lights, part VI, 1906, pages 151, 153; and Sailing Directions for Japan Korea, &c., 1904, pages 89, 104, 130.*

KOREA, EAST COAST—GENSAN.

Korumappo (Muraveva Point)—Light established.

No. 266 (second publication).—The British Admiralty has given notice (No. 649 of 1906) that a *red fixed* light elevated 187 feet above high water and visible from the bearing of $N 27^{\circ} E.$, through east and south, to $N. 62^{\circ} W.$, has been established in a white wooden building, 20 feet high, erected on the high land of Korumappo or Muraveva Point in the approach to Gensan.

Approximate position, lat. $39^{\circ} 12\frac{1}{2}' N.$, long. $127^{\circ} 28\frac{1}{2}' E.$

(Variation 5° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*Cape Duroch to Linden Point*, No. 1316; *port Lazaref*, No. 3037; *also List of Lights, Part VI, 1906, page 153, and Sailing Directions for Japan and Korea, &c., 1904, page 136.*

AUSTRALIA, EAST COAST—QUEENSLAND.

Brisbane river—Quarries Reach channel—Altered lights and buoys moved.

No. 267 (second publication).—The British Admiralty has given notice (No. 653 of 1906) that on and after June 19th the newly-dredged channel through Quarries reach would be open, the Hamilton reach channel having been extended to the eastward to connect with it.

The leading beacons used for the old channel would be moved to suit the new channel, those formerly situated at a distance of $2\frac{1}{2}$ cables westward from Colmslie pontoon head being shifted $2\frac{3}{8}$ cables S. 66° E. from their former positions, their relative positions being altered to suit the direction of the new channel, viz., S. 67° W. and N. 67° E. from each other; these two beacons or their lights in line S. 67° W. lead through the newly-dredged channel.

Leading beacons will also be established, one on Eagle Farm flats training wall at a distance of $1\frac{1}{2}$ cables N. 14° W. from Bridge Point, and a rear beacon approximately 4 cables No. 67° E. from the front beacon, to assist in passing through the new Quarries reach channel.

These two beacons in line N. 67° E. lead through the new channel.

The red buoy formerly marking the turning point of the Hamilton reach channel and Quarries reach old channel will be moored $2\frac{1}{2}$ cables S. 80° E. to mark the turning point in the new channel.

Approximate position, Colmslie pontoon, lat. $27^{\circ} 27'$ S., long. $153^{\circ} 5'$ E.

The positions of the above beacons and buoy are approximate, their exact positions not having been given.

(Variation 9° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—Brisbane river, No. 1674; also List of Lights, Part VI, 1906, page 239, No. 1434, Australia Directory, vol. II, 1898, pages 141, 142; and Supplement, 1900, page 7.

CHINA—YANG TSE KIANG, NORTH CHANNEL.

Drinkwater Point—Light and light-buoy to be replaced by light-vessel.

No. 268 (second publication).—The British Admiralty has given notice (No. 654 of 1906) that the Chinese Government intend, probably on July 1st next, to establish a light-vessel (without a crew), exhibiting a white occulting dioptric light every ten seconds, thus:—light, five seconds; eclipse, five seconds, in a position about 3 miles N. 83° W., from Drinkwater Point light and bell-buoy; the light, which will be of the 4th order, will be elevated 35 feet above the sea, and visible in clear weather from a distance of 11 miles; the vessel will be iron and painted red, having an iron column surmounted by a lantern. A bell, rung by the motion of the vessel, will be suspended on board.

Approximate position, lat. $34^{\circ} 24\frac{1}{2}'$ N., long. $121^{\circ} 56\frac{1}{2}'$ E.

On the establishment of the above light-vessel, the white group flashing light on Drinkwater Point, and Drinkwater Point light and bell-buoy will be discontinued. Further Notice will be given.

(Variation 2° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Kussan islands to Yang tse Kiang No. 1199; approaches to the Yang tse Kiang, No. 1602; also List of Lights, Part VI, 1906 page 133, No. 813; and China Sea Directory, vol. III, 1904, page 402.

The 27th July 1906.

BAY OF BENGAL—CHITTAGONG COAST.

Karnafuli river—Depth of water found in the channels.

No. 258 (third publication).—The Port Officer, Chittagong, has given notice that the following depth of water was found in the channels by soundings taken on the 10th July and reduced to zero:—

					Ft. in.
Track No. 1—Outer bar—					
Disc on diamond	...	...	...	...	13 6
Track No. 2—Inner bar—					
Disc on diamond	...	...	...	...	12 0
Batten beacon on pillar	...	...	...	...	12 0
Track No. 3—					
Triangle on cross and ball	...	...	...	...	19 0
Track No. 4—Guptakhally crossing—					
Tripod on diamond	...	...	...	...	16 0

CHINA, EAST COAST—CHUSAN ARCHIPELAGO.

Tongting island—Light-house building—Provisional light.

No. 259 (third publication).—The British Admiralty has given notice (No. 622 of 1906) that a light-house from which a light of the fourth order showing groups of four white flashes will be exhibited is in course of erection on Tongting island, Chusan Archipelago.

On or about 1st May a provisional white group occulting light, showing groups of four eclipses every thirty seconds, thus:—light, sixteen seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds; light, two seconds; eclipse, two seconds, would be exhibited from the summit of the island at an elevation of 180 feet above high water, and visible in clear weather from a distance of 10 miles, the light being of the sixth order.

A fog signal will also be established on this island.

Approximate position on chart No. 1429, lat. $29^{\circ} 51\frac{1}{2}'$ N., long. $122^{\circ} 35\frac{1}{2}'$ E.

Further Notice will be given when this light has been established.

This Notice affects the following Admiralty Charts:—Amoy to Nagasaki, No. 2412; Hong Kong to Liao tung gulf, No. 1262; Kue shan islands to the Yang tse, No. 1199; Nimrod sound to Yung river, No. 1429; Also List of Lights, Part VI, 1906, page 129; and China Sea Directory, vol. III, 1904, page 334.

AFRICA, NORTH-EAST—GULF OF ADEN.

Aden anchorage—Buoy to be established and position of Marbut shoal light-vessel to be altered.

No. 260 (third publication).—The Bombay Government has given notice (No. 71 of 1906) that on the 26th July a white Nun Buoy with a black top showing a green light at night will be moored on the following bearings:—

Clock Tower	...	...	...	S89° 00E
Marbut flagstaff	...	...	...	S71° 30E
Residency flagstaff	...	...	...	S34° 00E
Signal staff	...	...	...	S66° 00E

and that Marbut Light-Vessel will be moved S80° W, a distance of 80 yards, to a position on the following bearings:—

Clock Tower	...	...	...	N81° 00E
Marbut flagstaff	...	...	...	N85° 00E
Residency flagstaff	...	...	...	S46° 00E
Signal staff	...	...	...	S80° 30E

All bearings are true.

This notice affects the following Admiralty Charts:—Gulf of Aden, Sheet II, Western portion, No. 6C; Aden and adjacent bays. Aden Anchorage, No. 7; Red Sea, Sheet V, No. 8E; and Arabian Sea, No. 1012; and Red Sea and Gulf of Aden Pilot, fifth edition, 1900, pages 349 and 350, and Supplement 1904 relating to Red Sea and Gulf of Aden Pilot, page 39; also Admiralty List of Lights, Part VI, 1906, No. 130; and Light-Houses and Light-Vessels in British India, 1905, No. 130.

ST. L. S. WARDEN, COMMDR., R.I.M.,
Port Officer of Calcutta.



APPENDIX TO

The Calcutta Gazette.

WEDNESDAY, AUGUST 15, 1906.

NOTICES TO MARINERS.

THE following Notices are published for general information.

CALCUTTA, the 10th August 1906.

W. A. INGLIS,
Secy. to the Govt. of Bengal.

JAPAN—NAIKAI (INLAND SEA).

Shimonoseki (Simonoseki) strait, Moji shoal—Alteration in position of light-buoys.

No. 279 (first publication).—With reference to Notice to Mariners No. 309, dated 12th August 1905, issued by this office, the British Admiralty has given further notice (No. 706 of 1906) that the light-buoy, marking the north-east end of Moji shoal, situated at a distance of $6\frac{1}{2}$ cables S. 73° E. from the Observation spot, Simonoseki, has been moved about half a cable N. 84° E. from its former position, and is now situated at a distance of $6\frac{1}{2}$ cables S. 78° E. from the Observation spot.

Also, that the light-buoy, marking the south-west end of Moji shoal, situated at a distance of $5\frac{1}{2}$ cables S. 23° E. from the Observation spot, has been moved about three-quarters of a cable South from its former position, and is now situated at a distance of 6 cables S. 20° from the Observation spot.

Approximate position, Observation spot, lat. $33^{\circ} 57\frac{1}{2}'$ N., long. $130^{\circ} 56\frac{1}{2}'$ E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Simonoseki strait*, Nos. 532 and 1578; *Moji ko*, No. 3114; Also *Sailing Directions for Japan*, 1904, page 502.

JAPAN—GULF OF TARTARY—KARAFUTO (SAKHALIN) ISLAND, WEST COAST.

Lesovskago bay—Shoal reported.

No. 280 (first publication).—The British Admiralty has given notice (No. 707 of 1906) that a shoal having a depth of 2 fathoms over it is reported to exist in Lesovskago bay, in approximately lat. $49^{\circ} 14'$ N., long. $142^{\circ} 1'$ E.

This shoal, which is composed of hard sand and mud, is one mile long in a northerly and southerly direction and 5 cables broad, the general depths over it are from 2 to 3 fathoms and there is a depth of 4 fathoms on its southern end, but the northern end was not examined.

This Notice affects the following Admiralty Charts:—*Gulf of Tartary*, No. 3340; Also, *Sailing Directions for Japan*, &c., 1904, page 231.

KOREA, WEST COAST.

Taidong kang (Ping Yang inlet)—Extension of sand bank.

No. 281 (first publication).—The British Admiralty has given notice (No. 708 of 1906) that a sand bank, with a depth of 2 fathoms over it at low water, is reported to exist in the entrance to Taidong kang or Ping yang inlet, in a position from which the north-western point of Dau chen bears S. 56° W., distant 11 cables, and the north-eastern point of the same island S. 22° E. This sand bank appears to be connected with the line of shoals extending westward from Utt chu ra to.

Approximate position, lat. 38° 40½' N., long. 125° 0½' E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Approaches to Ping yang inlet, No. 1257; Ping yang inlet, No. 1656: Also, Sailing Directions for Japan, &c., 1904, pages 39-41.

AUSTRALIA—NEW SOUTH WALES.

Newcastle harbour—Decreased depth in entrance.

No. 282 (first publication).—With reference to Notice to Mariners No. 439, dated 20th December 1904, issued by this office, the British Admiralty has given further notice (No. 713 of 1906) that as the depths in the fairway of the entrance to Newcastle harbour have decreased, the signals made from the Pilot station will, until further notice, indicate each foot of rise or fall above 18 feet, and not 20 feet as before.

When abreast Nobby head vessels will find rather more water to the southward of the leading line of the towers.

Approximate position, lat. 32° 55' S., long. 151° 48' E.

This Notice affects the following Admiralty Chart:—Newcastle harbour, No. 2119: Also Australia Directory, vol. II, 1898, page 80.

EASTERN ARCHIPELAGO—SUMATRA—MALACCA STRAIT—THE BROTHERS.

Pulo Hiju Kechil—Light established.

No. 283 (first publication).—With reference to Notice to Mariners No. 120, dated 7th April 1906, issued by this office, the British Admiralty has given further notice (No. 715 of 1906) that a white flashing light, every twenty seconds, thus:—light, four seconds, eclipse, sixteen seconds, elevated 131 feet above high water and visible in clear weather from a distance of 17 miles, has been established in a white framework iron structure, 44 feet high, having at its base a white wooden dwelling with red tiled roof, erected on Pulo Hiju Kechil, the easternmost of the Brothers islands.

The light is of the 4th order and produced by acetylene gas.

Approximate position, lat. 1° 11½' N., long. 103° 21½' E.

This Notice affects the following Admiralty Charts:—Malacca strait, No. 1355; cape Rachado to Singapore, No. 795; approaches to Singapore, No. 3543; Singapore strait, No. 2403; also List of Lights, Part VI, 1906, page 71; China Sea Directory, vol. I, 1898, page 113; and Supplement, 1899, page 12.

CHINA, EAST COAST.

Lamook islands—Shoal westward of—.

No. 284 (first publication).—The following Notice to Mariners (No. 721 of 1906) issued by the British Admiralty is republished:—

Information, dated 14th May 1906, has been received from Commander E. LaT. Leatham, H.M.S. *Alacrity*, that when westward of Lamook islands a sounding of 6 fathoms was obtained from on board his vessel, in a position from which Sul rock bore N. 36° W., distant 5½ miles.

Approximate position, lat. 23° 13½' N., long. 117° 10½' E.

Vessels should avoid this shoal as there may be less water on it.

(Variation Nil in 1906.)

This Notice affects the following Admiralty Charts:—Hong-Kong to the Brothers' No. 1962; Namoa island, No. 1957: also China Sea Directory, vol. III, 1904, page 158.

INDIAN OCEAN--MADAGASCAR, WEST COAST.

Tulléar bay—Shoal extending—Beacons altered.

No. 285 (first publication).—The British Admiralty has given notice (No. 724 of 1906) that the shoal off Anosi point at the mouth of the river Fiherenana is extending seaward, the shoal water now having reached the peaked line denoting the fairway. This line requires moving slightly to the westward.

The beacon westward of Anosi and the Anosi flagstaff, 6 cables to the eastward of it, have disappeared, but a wooden tripod beacon, the position of which has not been determined, has been erected in this vicinity.

A pole beacon, surmounted by a diamond shape painted white, has been erected on the coast N. 53° W. from Table mountain. This beacon in line with Table mountain S. 53° E. leads up to the entrance of Tulléar channel until Great Reef beacon bears south, whence the course should be altered as requisite.

Approximate position, Tulléar channel, lat. 23° 21' S., long. 43° 37' E.

(Variation 15° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*St. Augustine and Tulléar bays, No. 692: also Islands of the Southern Indian Ocean, 1904, page 251.*

KOREA, WEST COAST.

Amu Nyoku kan (Yalu river)—Buoys established in southern approach.

No. 286 (first publication).—The British Admiralty has given notice (No. 725 of 1906) that the undermentioned buoys have been established in the southern approach to Amu Nyoku kan or Yalu kiang in the following positions:—

- (1) A black conical buoy with topmark, marked No. 1, in approximately lat. 39° 35½' N., long. 124° 22½' E.
- (2) A light-buoy, painted red, marked No. 2, exhibiting a white fixed light, in approximately lat. 39° 30½' N., long. 124° 21½' E.
- (3) A black conical buoy with topmark, marked No. 3, in approximately lat. 39° 45½' N., long. 124° 24½' E.
- (4) A red conical buoy with topmark, marked No. 4, in approximately lat. 39° 46' N., long. 124° 24½' E.
- (5) A black conical buoy, marked No. 7, in approximately lat. 39° 46½' N., long. 124° 24' E.
- (6) A black conical buoy, marked No. 9, in approximately lat. 39° 47½' N., long. 124° 23½' E.

This Notice affects the following Admiralty Charts:—*Po chili and Liao tung gulfs No. 1256; approaches to Ping Yang inlet, No. 1256: also Sailing Directions for Japan, etc. 1904, page 37; and China Sea Directory, vol. III, 1904, page 577.*

CHINA, SOUTH-EAST COAST.

Good Hope cape—Shoal to the north-eastward.

No. 287 (first publication).—The British Admiralty has given notice (No. 731 of 1906) of the existence of a rock, with a depth of 4½ fathoms over it, situated at a distance of about 5 cables N. 75° E. from Good Hope cape light-house in the approach to Swatau. This shoal, which is about one mile in extent, is still under examination: less water may therefore be found over it.

Approximate position on chart No. 854, lat. 23° 14½' N., long. 116° 49' E.

(Variation Nil in 1906.)

This Notice affects the following Admiralty Charts:—*Hong Kong to the Brothers, No. 1962; Namoa island, No. 1957; port of Swatau, No. 854: Also, China Sea Directory, vol. III, 1904, page 147.*

JAPAN SEA—PETER THE GREAT BAY.

Caution—Vladivostok approach—Submarine mines.

No. 288 (*first publication*).—The British Admiralty has given notice (No. 737 of 1906) that submarine mines were laid during the late war between Russia and Japan by both belligerents, extending apparently as far southward in Ussuri bay as a line joining Askold island to the Rimskago Korsakofa islands, a distance of about 40 miles. Damage has been caused to several steam-vessels approaching Vladivostok from the south-eastward by coming in contact with either fixed or drifting mines.

The Russian Government has given Notice, dated 6th June 1906, that a temporary *white fixed* light was established on 4th May last, in a light-house in course of construction on Cape Gamova, to assist in the navigation of the channel to Vladivostok by its western approach through Amur bay, which channel should be used until notice is issued that the eastern approach is free from danger.

Vessels, therefore, bound to Vladivostok should make cape Gamova. According to a Berlin Notice, the route thence to be followed is to pass westward of Rimskago Korsakofa, Stanin, and Tsivolko, with Popova and Kozakevicha close aboard, to the Eastern Bosphorus.

A fog siren would be established, probably in June, at Gamova light-house.

Approximate position lat. $42^{\circ} 33' N.$, long. $131^{\circ} 12' E.$

This Notice affects the following Admiralty Charts:—Tumen Ula to Strelok bay, No. 2432; Trinity bay to Eastern Bosphorus, No. 511; Ussuri bay, No. 288; Eastern Bosphorus, No. 1011. Also, List of Lights, Part VI, 1906, page 189; and Sailing Directions for Japan, &c., 1904, pages 162, 177, 178.

AUSTRALIA—VICTORIA—HOBSON BAY.

Gellibrand point light—Date of exhibition—Buoys to be withdrawn.

No. 289 (*first publication*).—With reference to Notice to Mariners No. 142, dated 23rd April 1906, issued by this Office, the British Admiralty has given further notice (No. 746 of 1906) that a pile lighthouse having been constructed in the position formerly occupied by Gellibrand light vessel, viz.,—8 cables South from the green light on the breakwater extending from Gellibrand point, Hobson bay, on and after 1st August next, an *occulting* light *every eighteen seconds*, elevated 50 feet above high water, and visible in clear weather from a distance of 12 miles, will be established in that structure. It will show the following sectors:—red, *fifteen seconds*; eclipse, *three seconds* from the bearing of $N. 63^{\circ} E.$ to $N. 39^{\circ} E.$; white, *six seconds*; red, *three seconds*; white, *six seconds*; eclipse, *three seconds* from $N. 39^{\circ} E.$, through north, to $N. 33^{\circ} W.$; red, *fifteen seconds*; eclipse, *three seconds* from $N. 33^{\circ} W.$, through west, to $S. 63^{\circ} W.$; white, *six seconds*; red, *three seconds*; white, *six seconds*; eclipse, *three seconds*, from $S. 63^{\circ} W.$, to South.

The undermentioned aids to navigation placed to mark the works in progress will be withdrawn on the same date:—

- a. The light-buoy exhibiting a *red fixed* light moored 400 feet eastward of the lighthouse constructing.
- b. The vessel from which rockets will be fired, during thick or foggy weather, moored 400 feet southward of the light-buoy.
- c. The *white fixed* light exhibited from the eastern end of the works whilst the lighthouse was under construction.
- d. The red flag displayed when pile driving was in progress.

Approximate position, lat. $37^{\circ} 52' S.$, long. $144^{\circ} 55' E.$

The exact position of the lighthouse is not stated.

(Variation 8° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—Port Philip, No. 1171b; Hobson bay, No. 624. Also, List of Lights, part VI, 1906, No. 1320; Australia Directory, vol. I, 1897, page 459; and Supplement, 1900, page 17.

INDIA, WEST—BOMBAY COAST.

Bombay harbour approach—Present position of wrecked Schooner No. 1.

No. 290 (*first publication*). With reference to Notice to Mariners No. 261, dated 25th July 1906, issued by this Office, the Bombay Government has given further notice (No. 75 of 1906) that the position of the wrecked Schooner No. 1 now is about $N. E.$ from the Light Vessel, one mile.

Bearings from the wreck are—

- Light Vessel $S. W. (T).$
- Mutabar Point $North (T).$
- Prongs Light House $N. by E. (T).$

AUSTRALIA—BROADMOUNT HARBOUR.

Fitzroy river, No. 3 Lead, Middle channel—Sandbank extending southward.

No. 291 (first publication).—The Portmaster, Brisbane, has given notice (No. 4 of 1906) that the small sandbank in No. 3 Lead, Middle Channel, Fitzroy River, having grown to the southward, the depth in the centre of the Lead is now only 7 feet 6 inches. Masters are therefore recommended to keep the dolphins of this Lead open their own width to the southward, when a depth of 19 feet at low water will be obtained.

Charts affected—Nos. 345 and 363, Australia Directory, vol. 2.

AUSTRALIA—PORT WAKEFIELD APPROACH.

Gulf of St. Vincent, east side—Existence of isolated and scattered rocks—Navigation dangerous.

No. 22 (first publication).—The President of the Marine Board, Port Adelaide, has given notice (No. 12 of 1906) that isolated and scattered rocks having at various times been reported as existing on the flats between Long Spit and Bald Hill, and some of them being said to have 6 feet less water over them than is shown on the chart, masters of vessels and others are hereby warned against navigating in less water than, say, 6 feet over their draught.

These flats, for about three miles seaward from high-water mark, may be considered as foul ground.

This affects Admiralty Chart No. 2389B.

AUSTRALIA—KANGAROO ISLAND.

Kingscote—Character of lights to be exhibited.

No. 293 (first publication).—The President of the Marine Board, Port Adelaide, has given notice (No. 13 of 1906) that in future the following lights will be exhibited at Kingscote, Kangaroo Island, viz.—

- (1) From a white painted house on the rise at the inner end of the jetty, a fixed white light showing to seaward over the jetty, and visible in clear weather a distance of eight (8) miles.
- (2) From a post on the outer end of the jetty, a light, showing red to seaward and white to landward over the jetty, at a height of thirteen (13) feet above H.-W., and visible in clear weather about four (4) miles.

The two lights in line lead over the Telegraph Bell Buoy, and bear from it N. 74° W. correct magnetic.

Approximate position of high light—Lat. 35° 40' S.; long. 137° 38' 30" E.

This affects Admiralty Chart No. 2389B.

The 10th August 1906.

INDIA WEST—BOMBAY COAST.

Bombay harbour approach.—A green painted "Wreck" buoy placed.

No. 294 (first publication).—In continuation of Notice to Mariners No. 290, dated the 10th August, issued by this office, the Bombay Government has given further notice, dated 8th idem, that a wreck buoy painted green with the word "Wreck" in white letters on its side has been placed on the East or Mid-channel side of the wreck of Pilot Schooner No. 1—From the buoy the following are True bearings:—

Prongs Light House	...	...	N. 91° E.
Sunk Rock Light House	...	...	N. 84° E.
Thull Knob Beacon	...	...	S. 79½° E.

The 13th August 1906.

INDIA, WEST—BOMBAY COAST.

Bankote Outer buoy adrift.

No. 269 (second publication).—The Bombay Government has given notice (No. 72 of 1906) that the Bankote outer buoy broke adrift from its moorings on the 23rd ultimo and was washed ashore at Velas, which is a village close to Bankote.

INDIAN OCEAN—MADAGASCAR—DIEGO SUAREZ BAY.

Antairana light—Sectors established.

No. 270 (second publication).—The British Admiralty has given notice (No. 673 of 1906) that on 1st January last the red fixed light on Antairana jetty, Diego Suarez bay, was altered to show the following sectors:—red from the bearing of S. 64° W. to S. 54° W., white from S. 54° W. to S. 47° W., green from S. 47° W. to S. 34° W., white from S. 34° W., through south and east, to N. 56° E., green from N. 56° E. to N. 7° E., being obscured in other directions; it is elevated 29 feet above high water.

Approximate position, lat. 12° 16' S., long. 49° 18' E.

(Variation 7° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Diego Suarez bay, No. 1116; plan of Port Nidère on chart No. 1064; Also List of Lights, Part VI, 1906, No. 102, and Islands in the Southern Indian Ocean, 1904, page 62.

EASTERN ARCHIPELAGO—BORNEO, WEST COAST.

Pontianak river—Prohibited anchorage in approach marked by buoys and beacons.

No. 271 (second publication).—The British Admiralty has given notice (No. 678 of 1906) that anchorage is prohibited on account of telegraph cables in the approach to the Pontianak river, within the limits which are defined by imaginary lines drawn between two buoys now established and the shore:—

Southern buoy—

- (1) A white can buoy, marked "Telegraaf Kabel No. 1," has been moored in a position about 3 miles from the coast in approximately lat. 0° 1' 25" S., long. 109° 8' 25" E.

Northern buoy—

- (2) A white can buoy, marked "Telegraaf Kabel No. 2," has been moored about 2 cables N. 16° E. from the above buoy.

The limits are also marked by beacons on shore, but the position of the beacons is not given.

This Notice affects the following Admiralty Chart:—Eastern Archipelago, No. 941a: Also China Sea Directory, vol. 11, 1899, page 39; and Supplement, 1901, page 3.

EASTERN ARCHIPELAGO—BORNEO, EAST COAST.

Balik Papan bay—Lights of prohibited anchorage altered—Buoy shifted.

No. 272 (second publication).—With reference to Notice to Mariners No. 85, dated 24th February 1905, issued by this office, the British Admiralty has given further notice (No. 679 of 1906) that the southern limit of the prohibited anchorage in Balik Papan bay has been altered so that it is now limited by a line extending S. 20° W. from the southern point of Tokong island to No. 4 buoy in the fairway. No. 4 buoy has therefore been replaced by the black buoy formerly situated at a distance of 13 cables S. 88° W. from the south point of Tokong. The northern limit is now a line drawn from the cable-house to the black buoy situated 14½ cables N. 80° W. from the south point of Tokong island.

Approximate position, Tokong, lat. 1° 16' S., long. 116° 48' E.

(Variation 2° Westerly in 1906.)

This Notice affects the following Admiralty Plans:—Balik Papan bay and anchorage off the East point of Balik Papan bay on No. 3031: Also Eastern Archipelago, Part II, 1904, page 290.

PACIFIC OCEAN, SOUTH—TUAMOTO ARCHIPELAGO—TAKARAVA ATOLL.

Rotoava approach—Temporary beacons erected.

No. 273 (second publication).—With reference to Notice to Mariners No. 221, dated 26th June 1906, issued by this office, the British Admiralty has given further notice (No. 681 of 1906) that the beacon on the western point of the entrance to North passage, and other beacons in the approach to Rotoava having been destroyed by a cyclone, the following temporary beacons have been erected in the undermentioned positions:—

- (a) Three white beacons on Poniu, near the entrance to the North passage; vessels must pass to the southward of these beacons.
- (b) A white beacon on 'Togamaitu i tai, Togamaitu i uta, Tapaeroa, and Kopoaspiro shoals.
- (c) A white beacon surmounted by a ball, on the shoal situated at a distance of $1\frac{1}{2}$ miles S. 58° W. from Rotoava light.
- (d) A white beacon on the shoal situated about $7\frac{1}{2}$ cables S. 16° W. from Rotoava light.

Approximate position, Rotoava light, lat. $16^{\circ} 2\frac{1}{2}'$ S., long. $145^{\circ} 38\frac{1}{2}'$ W.

Mariners are warned that great care must be exercised in navigating these waters.

(Variation 8° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—Plan of Rotoava on chart No. 1175: Also Pacific Islands, vol. III, 1900, pages 133, 134; and Supplement, 1903, page 9.

FOG SIGNALS—ADMIRALTY LISTS OF LIGHTS.

Cautionary Notices.

No. 274 (second publication).—The following Notice to Mariners, issued by the British Admiralty (No. 682 of 1906), is republished for general information:—

As the cautionary Notices respecting fog-signals given in the Introductory notes in all copies of the Admiralty Lists of Lights do not appear to be quite understood, more especially the paragraphs pointing out that such signals are heard at greatly varying distances, and that there are occasionally areas around a fog-signal station in which the fog-signal is wholly inaudible, it is thought desirable to point out to seamen that not infrequently a fog-signal, which may be heard under favourable circumstances from a distance of 10 miles or upwards, is inaudible when only 2 or 3 miles off it, and that no surprise should be felt if, from a vessel, either at anchor, or underway, not far from a fog-signal station, the sound of the fog-signal is not heard on board.

CHINA, SOUTH COAST—HONG HAI BAY.

Sam Chau inlet—Outer bank extending—Leading beacons removed.

No. 275 (second publication).—The British Admiralty has given notice (No. 689 of 1906) that information has been received that soundings taken by the Chinese Revenue schooner *Peng tai*, on the 7th April 1906, show that the Outer bank in Sam Chau inlet is extending to the southward and westward. The channel is now not more than one cable in width, and is stated to have a depth of 51 feet at low water.

The leading beacons have been removed.

This inlet should not be entered without a previous examination of the entrance.

Approximate position, Outer bank, lat. $22^{\circ} 41'$ N., long. $114^{\circ} 59'$ E.

This Notice affects the following Admiralty Chart:—Sam Chau inlet, No. 3459: Also China Sea Directory, vol. III, 1904, page 137.

EASTERN ARCHIPELAGO—SUMATRA, NORTH-EAST COAST.

Straits of Durian and Berhala—Light buoys established.

No. 276 (second publication).—With reference to Notice to Mariners No. 232, dated 26th June 1906, issued by this office, the British Admiralty has given further notice (No. 692 of 1906) that, on 19th and 18th of May 1906, respectively, the undermentioned light-buoys were established in the straits of Durian and Berhala in the following positions:—

- (a) STRAIT OF DURIAN. A light-buoy, painted white, exhibiting a white occulting light every twenty seconds, thus:—light, ten seconds; eclipse, ten seconds; on the north-eastern side of Richardson reef.

Approximate position, lat. $0^{\circ} 37\frac{1}{2}'$ N., long. $103^{\circ} 43'$ E.

- (b) **BERHALA STRAIT.** A light-buoy, painted in red and black horizontal bands, exhibiting a white occulting light every twenty seconds, thus:—light, ten seconds; eclipse, ten seconds, on the south-eastern side of Speke rock.

Approximate position, lat. $0^{\circ} 37' S.$, long. $104^{\circ} 6' E.$

This Notice affects the following Admiralty Charts:—Banka strait to Singapore, No. 2757; strait of Durian, No. 2402; channels between Sumatra and Linga, No. 1789: Also China Sea Directory, vol. I, 1896, pages 557, 546; and Supplement, 1899, page 41.

CHINA, SOUTH-EAST COAST—PAGODA ISLAND.

Tongsang harbour—Shoal reported in entrance to—

No. 277 (second publication).—The British Admiralty has given notice (No. 696 of 1906) that the Master of S.S. *Yunnan* reports that his vessel struck on a shoal, with a depth of 13 feet over it at low-water spring tides, in entrance to Tongsang harbour, in a position 2 miles south from the pagoda on Pagoda island. A sounding of 8 fathoms was obtained immediately before striking.

Approximate position, lat. $23^{\circ} 42' N.$, long. $117^{\circ} 32\frac{1}{2}' E.$

(Variation nil in 1906.)

This Notice affects the following Admiralty Charts:—Formosa island, &c., No. 1968; The Brothers to Ockau islands, No. 1760; Tongsang harbour, No. 1958: Also China Sea Directory, vol. III, 1904, page 162.

PACIFIC OCEAN—PHILIPPINE ISLANDS—NEGROS AND LEITE.

Dumaguete and Kanigao islands—Lights established.

No. 278 (second publication).—The British Admiralty has given notice (No. 699 of 1906) that lights have been established at the undermentioned places in the Philippine islands:—

- (a) **DUMAGUETE, NEGROS ISLAND.** A red fixed light, elevated 38 feet above high water, visible in clear weather from a distance of 7 miles, from the bearing of S. $27^{\circ} W.$, through west, to N. $15^{\circ} W.$, and exhibited from a white framework tower, 34 feet high, erected near the beach at Dumaguete.

Approximate position, lat. $9^{\circ} 18\frac{1}{2}' N.$, long. $123^{\circ} 17\frac{1}{2}' E.$

- (b) **KANIGAO ISLAND, LEITE ISLAND.** A red fixed light, elevated 62 feet above high water, visible in clear weather from a distance of 9 miles, and exhibited from a white framework tower, 52 feet high, erected on the north-eastern point of Kanigao island.

Approximate position, lat. $10^{\circ} 15' N.$, long. $124^{\circ} 44\frac{1}{2}' E.$

The positions refer to chart No. 2578.

(Variation 1° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—The Philippine islands, No. 943; Sulu or Mindoro sea, No. 2578: Also List of Lights, Part VI, 1906, pages 101, 105; Eastern Archipelago, Part I, 1902, pages 274, 290; and Supplement, 1906, page 20.

INDIA, WEST—BOMBAY COAST.

Caution—A sunken pilot-schooner near the Outer light-vessel.

No. 261 (third publication).—A telegraphic communication has been received from the Port Officer, Bombay, stating that one of the pilot's schooners lies sunk about N.-W. of the Outer light-vessel, distant half-a-mile; masts visible at low water. Mariners are hereby warned.

The 25th July 1906.

AUSTRALIA, WEST—FREMANTLE APPROACH.

Rottneest island—Fog explosive established.

No. 262 (third publication).—The British Admiralty has given notice (No. 641 of 1906) that, on and after 1st June 1906, a fog-explosive signal, giving during thick or foggy weather one report every fifteen minutes, would be established near the centre of Rottneest island.

Approximate position, lat. $32^{\circ} 0' S.$, long. $115^{\circ} 31' E.$

NOTE.—The cautionary remarks respecting fog signals given in the introductory remarks to all parts of the Admiralty Lists of Lights should be carefully studied.

This Notice affects the following Admiralty Charts :—Campion bay to cape Naturaliste, No. 1033 : Rottneest island to Warnbro' sound, No. 1058 : also List of Lights, Part VI, 1906, No. 1195 ; and Australia Directory, Vol. III, 1905, page 309.

JAPAN, SOUTH COAST—GULF OF TOKIO ENTRANCE.

Uraga channel—Buoy marking submarine mines.

No. 263 (third publication).—The British Admiralty has given Notice (No. 646 of 1906) that a white cylindrical buoy has been moored at a distance of $5\frac{1}{2}$ cables S. $60^{\circ} E.$ from Ashika jima beacon to mark the outer end of a number of mines which have been submerged for experiment in Uraga channel.

Approximate position, lat. $35^{\circ} 12\frac{1}{2}' N.$, long. $139^{\circ} 44' E.$

The mines will remain in position until January 1907, and Mariners are warned that they should on no account attempt to pass westward of the buoy marking them.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart :—Gulf of Tokyo, No. 2657 : Also, Sailing Directions for Japan, &c., 1904, pages 364, 369.

KOREA, WEST COAST—SABEE RIVER APPROACH.

Toku somu (Baker island)—Light-house construction.

No. 264 (third publication).—The British Admiralty has given Notice (No. 647 of 1906) that a lighthouse is under construction on Toku somu (Baker island).

Approximate position, lat. $36^{\circ} 39' N.$, long. $126^{\circ} 0\frac{1}{2}' E.$

This Notice affects the following Admiralty Charts :—Makau group to Clifford islands, No. 915 ; approaches to Seoul, No. 1258 : Also, List of Lights, part VI., 1906, No. 916 ; and Sailing Directions for Korea, &c., 1904, page 51.

KOREA, SOUTH COAST.

Uto (Beaufort island)—Ari somu (Sentinel island), and Uru Saki—Lights established.

No. 265 (third publication).—The British Admiralty has given notice (No. 648 of 1906) that the undermentioned lights have been established off the south coast of Korea, in the following positions :—

UTO OR BEAUFORT ISLAND.

A white fixed light (unwatched), elevated 442 feet above high water, and visible in clear weather from a distance of 8 miles from the bearing of S. $66^{\circ} E.$, through south and west, to N. $19^{\circ} E.$, has been established in a white wooden building, 20 feet high, erected on the eastern end of the island.

Approximate position, lat. $33^{\circ} 29\frac{1}{2}' N.$, long. $126^{\circ} 58' E.$

ARI SOMU OR SENTINEL ISLAND.

A white fixed light, elevated 382 feet above high water, has been established in a white wooden building, 32 feet high, erected on the summit of Ari somu.

Approximate position lat. $34^{\circ} 32\frac{1}{2}' N.$, long. $128^{\circ} 44' E.$

URU SAKI, north-east point of Commemoration bay.

A white fixed light (unwatched), elevated 97 feet above high water, and visible in clear weather from a distance of 8 miles from the bearing of S. $15^{\circ} W.$, through west and north, to N. $50^{\circ} E.$, has been established in a white wooden building erected on Uru saki, north-east point of cape Tikmenev.

It has been placed on the chart in approximately lat. $35^{\circ} 30' N.$, long. $129^{\circ} 30\frac{1}{2}' E.$, and the position marked Uru saki.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Nipon, Kiusiu, &c.*, No. 2347; *Shantung to Nagasaki*, No. 3480; *Korean archipelago*, No. 104; *Western coasts of Kiusiu, &c.*, No. 358; *Also, List of lights, part VI, 1906, pages 151, 153; and Sailing Directions for Japan Korea, &c., 1904, pages 89, 104, 130.*

KOREA, EAST COAST—GENSAN.

Korumappo (Muraveva Point)—Light established.

No. 266 (third publication).—The British Admiralty has given notice (No. 649 of 1906) that a red fixed light elevated 187 feet above high water and visible from the bearing of N. $27^{\circ} E.$, through east and south, to N. $62^{\circ} W.$, has been established in a white wooden building, 20 feet high, erected on the high land of Korumappo or Muraveva Point in the approach to Gensan.

Approximate position, lat. $39^{\circ} 12\frac{1}{2}' N.$, long. $127^{\circ} 28\frac{1}{2}' E.$

(Variation 5° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*Cape Duroch to Linden Point*, No. 1316; *port Lazaref*, No. 3037; also *List of Lights, Part VI, 1906, page 153, and Sailing Directions for Japan and Korea, &c., 1904, page 136.*

AUSTRALIA, EAST COAST—QUEENSLAND.

Brisbane river—Quarries Reach channel—Altered lights and buoys moved.

No. 267 (third publication).—The British Admiralty has given notice (No. 653 of 1906) that on and after June 19th the newly-dredged channel through Quarries reach would be open, the Hamilton reach channel having been extended to the eastward to connect with it.

The leading beacons used for the old channel would be moved to suit the new channel, those formerly situated at a distance of $2\frac{1}{2}$ cables westward from Colmelie pontoon head being shifted $2\frac{1}{2}$ cables S. $66^{\circ} E.$ from their former positions, their relative positions being altered to suit the direction of the new channel, viz., S. $67^{\circ} W.$ and N. $67^{\circ} E.$ from each other; these two beacons or their lights in line S. $67^{\circ} W.$ lead through the newly-dredged channel.

Leading beacons will also be established, one on Eagle Farm flats training wall at a distance of $1\frac{1}{2}$ cables N. $14^{\circ} W.$ from Bridge Point, and a rear beacon approximately 4 cables No. $67^{\circ} E.$ from the front beacon, to assist in passing through the new Quarries reach channel.

These two beacons in line N. $67^{\circ} E.$ lead through the new channel.

The red buoy formerly marking the turning point of the Hamilton reach channel and Quarries reach old channel will be moored $2\frac{1}{2}$ cables S. $80^{\circ} E.$ to mark the turning point in the new channel.

Approximate position, Colmelie pontoon, lat. $27^{\circ} 27' S.$, long. $153^{\circ} 5' E.$

The positions of the above beacons and buoy are approximate, their exact positions not having been given.

(Variation 9° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—*Brisbane river*, No. 1674; also *List of Lights, Part VI, 1906, page 232, No. 1434, Australia Directory, vol. II, 1898, pages 141, 142; and Supplement, 1900, page 7.*

CHINA—YANG TSE KIANG, NORTH CHANNEL.

Drinkwater Point—Light and light-buoy to be replaced by light-vessel.

No. 268 (third publication).—The British Admiralty has given notice (No. 654 of 1906) that the Chinese Government intend, probably on July 1st next, to establish a light-vessel (without a crew), exhibiting a white occulting dioptric light every ten seconds, thus:—light, five seconds; eclipse, five seconds, in a position about 8 miles N. $83^{\circ} W.$, from Drinkwater Point light and bell-buoy; the light, which will be of the 4th order, will be elevated 35 feet above

the sea, and visible in clear weather from a distance of 1½ miles; the vessel will be iron and painted red, having an iron column surmounted by a lantern. A bell, rung by the motion of the vessel, will be suspended on board.

Approximate position, lat. $34^{\circ} 24\frac{1}{2}'$ N., long. $121^{\circ} 56\frac{1}{2}'$ E.

On the establishment of the above light-vessel, the white group flashing light on Drinkwater Point, and Drinkwater Point light and bell-buoy will be discontinued.

Further Notice will be given.

(Variation 2° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Kueshan islands to Yang tee Kiang No. 1199; approaches to the Yang tee Kiang, No. 1602; also List of Lights, Part VI, 1906 page 133, No. 813; and China Sea Directory, vol. III, 1904, page 402.

The 27th July 1906.

ST. L. S. WARDEN, COMMDR., R.I.M.,
Port Officer of Calcutta.



APPENDIX TO

The Calcutta Gazette.

WEDNESDAY, AUGUST 22, 1906.

NOTICES TO MARINERS.

The following Notices are published for general information.

CALCUTTA, the 17th August 1906.

W. A. INGLIS,
Secy. to the Govt. of Bengal.

BAY OF BENGAL—CHITTAGONG COAST.

South Patches light-vessel placed in position.

No. 295 (first publication).—In continuation of Notice to Mariners No. 26, dated the 12th January 1906, issued by this office, the Port Officer, Chittagong, has given further notice that the South Patches light-vessel was placed in position on the 15th August.

AUSTRALIA, SOUTH—PORT ADELAIDE RIVER.

Dredged channel—Light beacons established.

No. 296 (first publication).—With reference to Notice to Mariners No. 242, dated the 3rd July 1906, issued by this office, the British Admiralty has given further notice (No. 762 of 1906) that the erection of light beacons on the port side of the dredged channel when entering Port Adelaide river has been completed. These beacons are painted black, each exhibiting *fixed* light showing *green* over the channel and *white* towards the shore. They are marked G and numbered 0 to 9, commencing from seaward. Each beacon stands 15 feet clear of the channel. No. 0 G. is placed about $3\frac{1}{2}$ cables S. 53° W. from the Reflecting beacon at the entrance to the channel. No. 1 G. is about a quarter of a cable S. 51° W. from the Reflecting beacon. No. 2 G. is situated opposite the closed channel about one mile N. 31° E. from the Reflecting beacon. The remaining beacons are placed opposite the beacon of the corresponding number on the other side of the channel.

The red light on the beacon situated 13 cables N. 35° E. from the Reflecting beacon would, on the 1st June, be discontinued.

The dredged channel is now marked throughout by red beacons exhibiting *white fixed* lights on the starboard hand on entering, and black beacons exhibiting *green fixed* lights on the port hand.

Approximate position, Reflecting beacon, lat. $34^{\circ} 47\frac{1}{2}'$ S., long. $138^{\circ} 28\frac{1}{2}'$ E.

(Variation 5° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—Port Adelaide, No. 1750. Also, List of Lights, Part VI, 1906, page 206; and Australia Directory, vol. I, 1897, page 352.

STRAITS SETTLEMENTS—SINGAPORE, EASTERN APPROACH, MIDDLE CHANNEL.

Lima islands—Shoal reported south-east of—.

No. 297 (first publication).—The British Admiralty has given notice (No. 769 of 1906) that the Master of the S.S. *Fallodon* reports that his vessel struck on a reef, with a depth of 3 fathoms over it, when at a distance of about 6 cables south eastward from Stork reef, Lima islands, in approximately lat. $1^{\circ} 21\frac{1}{2}'$ N., long. $104^{\circ} 19\frac{1}{2}'$ E.

P.D. has been placed against this shoal on the chart.

Mariners are recommended to give these islands a wide berth.

This Notice affects the following Admiralty Charts:—Banka strait to Singapore, No. 2757; approaches to Singapore, No. 3543; Singapore to Tioman island, No. 2041; Singapore strait, No. 2403: Also, China Sea Directory, vol. I, 1896, page 237.

AUSTRALIA, NORTH-WEST COAST—KING SOUND.

Sunday strait—Shoal reported.

No. 298 (first publication).—The British Admiralty has given notice (No. 770 of 1906) that a reef, with a depth of about one foot over it at low water, is reported to exist in Sunday strait, King sound, in approximately lat. $16^{\circ} 27\frac{1}{2}'$ S., long. $123^{\circ} 16\frac{1}{2}'$ E. "Reported 1906" has been placed against this shoal on the charts. This position, for which no bearings are furnished, might be identical with Amur reef, which is placed on the chart approximately.

This Notice affects the following Admiralty Charts:—Buccaneer archipelago to Bedoup island, No. 1048; Hall point to cape Bertholet, No. 1052: Also, Australia Directory, vol. III, 1905, page 192.

EASTERN ARCHIPELAGO—SUMATRA, NORTH COAST.

Pulo Bras group—Dangers in the vicinity.

No. 299 (first publication).—The British Admiralty has given notice (No. 774 of 1906) of the existence of the undermentioned dangers, and the non-existence of another, in the vicinity of the Pulo Bras islands, as follows:—

- (1) Lampujang strait. The shoals at the western entrance to this strait, off the north-western point of Nasi Besar, extend about half a cable further out than shown on the chart. There is a depth of $3\frac{1}{2}$ fathoms on this extension. At a distance of $4\frac{1}{2}$ cables S. 75° W. from the south point of Pulo Bras is the south-eastern extremity of a ridge, which extends from this position $4\frac{1}{2}$ cables in a north-westerly direction, having a breadth of about four-tenths of a cable. The least depth found on this ridge was $2\frac{1}{2}$ fathoms at low-water springs.

Approximate position, Pulo Bras, south point, lat. $5^{\circ} 39\frac{1}{2}'$ N., long. $95^{\circ} 10\frac{1}{2}'$ E.

- (2) Gepon islets. The reef extending to the southward from these islets does not exist.

Approximate position, lat. $5^{\circ} 36'$ N., long. $95^{\circ} 5'$ E.

- (3) The least depth on the shoal of $4\frac{1}{2}$ fathoms between Pulo Batu and Pulo Kelapa was found to be $2\frac{1}{2}$ fathoms.

Approximate position, lat. $5^{\circ} 33\frac{1}{2}'$ N., long. $95^{\circ} 12\frac{1}{2}'$ E.

The positions refer to chart No. 219.

(Variation 1° East-rly in 1906.)

This Notice affects the following Admiralty Chart:—Acheh head to Diamond point, with plan of Lampujang strait, No. 219: Also, China Sea Directory, vol. I, 1896, pages 43, 44.

CHINA, NORTH—YELLOW SEA—MANCHURIA.

Port Arthur or Lushan Kau approach—Shoal off Lao Lui Chui.

No. 300 (first publication).—The British Admiralty has given notice (No. 782 of 1906) of the existence of a rock, with a depth of $4\frac{1}{2}$ fathoms over it, in the approach to Port Arthur, situated in a position from which Lao Lui Chui bears N. 36° W., distant $2\frac{1}{2}$ cables.

At a distance of about four-tenths of a cable north-westward from this rock there is a rocky head with a depth of $2\frac{1}{2}$ fathoms over it; there is a depth of 9 fathoms between them, and from 12 to 17 fathoms around both rocks.

Approximate position, lat. $38^{\circ} 4' N.$, long. $121^{\circ} 19\frac{1}{2}' E.$

(Variation 4° Westerly in 1903.)

This Notice affects the following Admiralty Charts:—Pechili strait, No. 1398; Kuangtung peninsula, No. 1798; Also, China Sea Directory, vol. III, 1904, pages 591, 592.

CHINA, NORTH—YELLOW SEA—MANCHURIA.

Port Arthur or Lushan Kan—Wreck in approach.

No. 301 (first publication).—The British Admiralty has given notice (No. 783 of 1906) that a wreck, with a depth of 10 fathoms over the hull, lies sunk in the approach to Port Arthur, situated in a position from which the 515 foot hill south-westward of Chikwan shan bears N. 15° W., distant $1\frac{1}{4}$ miles, and the Port Arthur light, western side of entrance, N. 22° E. There is no mention of masts projecting in the Notice received.

Approximate position, lat. $38^{\circ} 44\frac{1}{2}' N.$, long. $121^{\circ} 14\frac{1}{2}' E.$

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Gulf of Pechili, No. 1798; Kwantung peninsula, No. 1792; Port Arthur, No. 1236; Also, China Sea Directory, vol. III, 1904, page 592.

JAPAN—GULF OF TARTARY—KARUFUTO (SAKHALIN) ISLAND SOUTH COAST.

Kushunkotan (Korsakovsk) road—Light established—Storm signals.

No. 302 (first publication).—The British Admiralty has given notice (No. 784 of 1906) that a white fixed light, elevated 201 feet above high water, and visible in clear weather from a distance of 12 miles, has been established on a white staff, 18 feet high, in place of the former light exhibited on the hill to the northward of Kushunkotan or Korsakovsk.

Approximate position, lat. $46^{\circ} 38\frac{1}{2}' N.$, long. $142^{\circ} 45\frac{1}{2}' E.$

A storm signal station has been established at Kushunkotan. The church, the beacons, and the mill at Kushunkotan, and the beacons at Porosan tomari (Ainskoe settlement), $1\frac{1}{2}$ miles to the southward, have all disappeared.

This Notice affects the following Admiralty Chart:—Plan of Korsakovsk road on shore, No. 2198; Also, List of Lights, part VI, 1906, No. 1165; and Sailing Directions for Japan etc., 1904, pages 238, 239.

BAY OF BENGAL—CHITTAGONG COAST.

Karnafuli river—Depth of water in the channels.

No. 303 (first publication).—The Port Officer, Chittagong, has given notice that the following depth of water was found in the channels by soundings taken on the 17th August and reduced to zero:—

						Ft.	IN.
Track No. 1—Outer bar—							
Disc on diamond	...	...	...	...	...	14	0
Track No. 2—Inner bar—							
Disc on diamond	...	...	...	...	...	11	6
Batten beacon on pillar	...	...	...	...	...	12	6
Track No. 3—							
Triangle on cross and ball	...	...	...	...	...	20	0
Track No. 4—Guptakhally crossing—							
Tripod on diamond	...	...	...	...	...	20	0

The 20th August 1906.

JAPAN—NAIKAI (INLAND SEA).

Simonoseki (Simonosaki) strait, Moji shoal—Alteration in position of light-buoys.

No. 279 (second publication).—With reference to Notice to Mariners No. 309, dated 12th August 1905, issued by this office, the British Admiralty has given further notice (No. 706 of 1906) that the light-buoy, marking the north-east end of Moji shoal, situated at a distance of $6\frac{1}{2}$ cables S. 73° E. from the Observation spot, Simonoseki, has been moved about half a cable N. 34° E. from its former position, and is now situated at a distance of $6\frac{1}{2}$ cables S. 78° E. from the Observation spot.

Also, that the light-buoy, marking the south-west end of Moji shoal, situated at a distance of $5\frac{1}{2}$ cables S. 23° E. from the Observation spot, has been moved about three-quarters of a cable South from its former position, and is now situated at a distance of 6 cables S. 20° from the Observation spot.

Approximate position, Observation spot, lat. $33^{\circ} 57\frac{1}{2}'$ N., long. $130^{\circ} 56\frac{1}{2}'$ E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Simonoseki strait*, Nos. 532 and 1578; *Moji ko*, No. 3114; Also *Sailing Directions for Japan*, 1904, page 502.

JAPAN—GULF OF TARTARY—KARAFUTO (SAKHALIN) ISLAND, WEST COAST.

Lesovskago bay—Shoal reported.

No. 280 (second publication).—The British Admiralty has given notice (No. 707 of 1906) that a shoal having a depth of 2 fathoms over it is reported to exist in Lesovskago bay, in approximately lat. $49^{\circ} 14'$ N., long. $142^{\circ} 1'$ E.

This shoal, which is composed of hard sand and mud, is one mile long in a northerly and southerly direction and 5 cables broad, the general depths over it are from 2 to 3 fathoms and there is a depth of 4 fathoms on its southern end, but the northern end was not examined.

This Notice affects the following Admiralty Charts:—*Gulf of Tartary*, No. 3340; Also *Sailing Directions for Japan*, &c., 1904, page 231.

KOREA, WEST COAST.

Taidong kang (Ping Yang inlet)—Extension of sand bank.

No. 281 (second publication).—The British Admiralty has given notice (No. 708 of 1906) that a sand bank, with a depth of 2 fathoms over it at low water, is reported to exist in the entrance to Taidong kang or Ping yang inlet, in a position from which the north-western point of Dau chen bears S 66° W., distant 11 cables, and the north-eastern point of the same island S. 22° E. This sand bank appears to be connected with the line of shoals extending westward from Utt chu ra to.

Approximate position, lat. $38^{\circ} 40\frac{1}{2}'$ N., long. $125^{\circ} 0\frac{1}{2}'$ E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Approaches to Ping yang inlet*, No. 1257; *Ping yang inlet*, No. 1856; Also, *Sailing Directions for Japan*, &c., 1904, pages 39-41.

AUSTRALIA—NEW SOUTH WALES.

Newcastle harbour—Decreased depth in entrance.

No. 282 (second publication).—With reference to Notice to Mariners No. 439, dated 20th December 1904, issued by this office, the British Admiralty has given further notice (No. 713 of 1906) that as the depths in the fairway of the entrance to Newcastle harbour have decreased, the signals made from the Pilot station will, until further notice, indicate each foot of rise or fall above 18 feet, and not 20 feet as before.

When abreast Nobby head vessels will find rather more water to the southward of the leading line of the towers.

Approximate position, lat. $32^{\circ} 55'$ S., long. $151^{\circ} 48'$ E.

This Notice affects the following Admiralty Chart:—*Newcastle harbour*, No. 2119; Also *Australia Directory*, vol. II, 1898, page 80.

EASTERN ARCHIPELAGO—SUMATRA—MALACCA STRAIT—THE BROTHERS.

Pulo Hiju Kechil—Light established.

No. 283 (second publication).—With reference to Notice to Mariners No. 120, dated 7th April 1906, issued by this office, the British Admiralty has given further notice (No. 715 of 1906) that a white flashing light, every twenty seconds, thus:—light, four seconds, eclipse, sixteen seconds, elevated 131 feet above high water and visible in clear weather from a distance of 17 miles, has been established in a white framework iron structure, 44 feet high, having at its base a white wooden dwelling with red tiled roof, erected on Pulo Hiju Kechil, the easternmost of the Brothers islands.

The light is of the 4th order and produced by acetylene gas.

Approximate position, lat. $1^{\circ} 11\frac{1}{2}'$ N., long. $103^{\circ} 21\frac{1}{2}'$ E.

This Notice affects the following Admiralty Charts:—Malacca strait, No. 1355; cape Rachado to Singapore, No. 795; approaches to Singapore, No. 3543; Singapore strait, No. 2403; also List of Lights, Part VI, 1906, page 71; China Sea Directory, vol. I, 1896, page 113; and Supplement, 1899, page 12.

CHINA, EAST COAST.

Lamook islands—Shoal westward of—.

No. 284 (second publication).—The following Notice to Mariners (No. 721 of 1906) issued by the British Admiralty is republished:—

Information, dated 14th May 1906, has been received from Commander E. LaT. Leatham, H.M.S. *Alacrity*, that when westward of Lamook islands a sounding of 6 fathoms was obtained from on board his vessel, in a position from which Sul rock bore N. 36° W., distant $5\frac{1}{2}$ miles.

Approximate position, lat. $23^{\circ} 13\frac{1}{2}'$ N., long. $117^{\circ} 10\frac{3}{4}'$ E.

Vessels should avoid this shoal as there may be less water on it.

(Variation Nil in 1906.)

This Notice affects the following Admiralty Charts:—Hong-Kong to the Brothers, No. 1962; Nanea island, No. 1957; also China Sea Directory, vol. III, 1904, page 158.

INDIAN OCEAN—MADAGASCAR, WEST COAST.

Tulléar bay—Shoal extending—Beacons altered.

No. 285 (second publication).—The British Admiralty has given notice (No. 724 of 1906) that the shoal off Anosi point at the mouth of the river Fiherenana is extending seaward, the shoal water now having reached the peaked line denoting the fairway. This line requires moving slightly to the westward.

The beacon westward of Anosi and the Anosi flag-staff, 6 cables to the eastward of it, have disappeared, but a wooden tripod beacon, the position of which has not been determined, has been erected in this vicinity.

A pole beacon, surmounted by a diamond shape painted white, has been erected on the coast N. 53° W. from Table mountain. This beacon in line with Table mountain S 58° E. leads up to the entrance of Tulléar channel until Great Reef beacon bears south, whence the course should be altered as requisite.

Approximate position, Tulléar channel, lat. $23^{\circ} 21'$ S., long. $43^{\circ} 37'$ E.

(Variation 15° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—St. Augustine and Tulléar bays, No. 692; also Islands of the Southern Indian Ocean, 1904, page 251.

KOREA, WEST COAST.

Amu Nyoku kan (Yalu river)—Buoys established in southern approach.

No. 286 (second publication).—The British Admiralty has given notice (No. 725 of 1906) that the undermentioned buoys have been established in the southern approach to Amu Nyoku kan or Yalu kiang in the following positions:—

- (1) A black conical buoy with topmark, marked No. 1, in approximately lat. $39^{\circ} 35\frac{3}{4}'$ N., long. $124^{\circ} 22\frac{3}{4}'$ E.
- (2) A light-buoy, painted red, marked No. 2, exhibiting a white fixed light, in approximately lat. $39^{\circ} 30\frac{1}{2}'$ N., long. $124^{\circ} 21\frac{3}{4}'$ E.

- (3) A black conical buoy with topmark, marked No. 3, in approximately lat. $39^{\circ} 45\frac{1}{2}'$ N., long. $124^{\circ} 24\frac{1}{2}'$ E.
- (4) A red conical buoy with topmark, marked No. 4, in approximately lat. $39^{\circ} 46'$ N. long. $124^{\circ} 24\frac{1}{2}'$ E.
- (5) A black conical buoy, marked No. 7, in approximately lat. $39^{\circ} 46\frac{1}{2}'$ N., long. $124^{\circ} 24'$ E.
- (6) A black conical buoy, marked No. 9, in approximately lat. $39^{\circ} 47\frac{1}{2}'$ N., long. $124^{\circ} 23\frac{1}{2}'$ E.

This Notice affects the following Admiralty Charts:—Pe chili and Lian tung gulfs No. 1256; approaches to Ping Yang inlet, No. 1256; also Sailing Directions for Japan, etc. 1904, page 37; and China Sea Directory, vol. III, 1904, page 577.

CHINA, SOUTH-EAST COAST.

Good Hope cape—Shoal to the north eastward.

No. 287 (second publication).—The British Admiralty has given notice (No. 731 of 1906) of the existence of a rock, with a depth of $4\frac{1}{2}$ fathoms over it, situated at a distance of about 5 cables N. 75° E. from Good Hope cape light-house in the approach to Swatau. This shoal, which is about one mile in extent, is still under examination: less water may therefore be found over it.

Approximate position on chart No. 854, lat. $23^{\circ} 14\frac{1}{2}'$ N., long. $116^{\circ} 49'$ E.

(Variation Nil in 1906.)

This Notice affects the following Admiralty Charts:—Hong Kong to the Brothers, No. 1962; Namoa island, No. 1957; port of Swatau, No. 854; Also, China Sea Directory, vol. III, 1904, page 147.

JAPAN SEA—PETER THE GREAT BAY.

Caution—Vladivostok approach—Submarine mines.

No. 288 (second publication).—The British Admiralty has given notice (No. 737 of 1906) that submarine mines were laid during the late war between Russia and Japan by both belligerents, extending apparently as far southward in Ussuri bay as a line joining Askold island to the Rimskago Korsakofa islands, a distance of about 40 miles. Damage has been caused to several steam-vessels approaching Vladivostok from the south-eastward by coming in contact with either fixed or drifting mines.

The Russian Government has given Notice, dated 6th June 1906, that a temporary white fixed light was established on 4th May last, in a light-house in course of construction on Cape Gamova, to assist in the navigation of the channel to Vladivostok by its western approach through Amur bay, which channel should be used until notice is issued that the eastern approach is free from danger.

Vessels, therefore, bound to Vladivostok should make cape Gamova. According to a Berlin Notice, the route thence to be followed is to pass westward of Rimakago Korsakofa, Stenin, and Tsivolko, with Popova and Kozakevicha close aboard, to the Eastern Bosphorus.

A fog siren would be established, probably in June, at Gamova light-house.

Approximate position lat. $42^{\circ} 33\frac{1}{2}'$ N., long. $131^{\circ} 12\frac{1}{2}'$ E.

This Notice affects the following Admiralty Charts:—Tumen Ula to Strelak bay, No. 2432; Trinity bay to Eastern Bosphorus, No. 511; Ussuri bay, No. 288; Eastern Bosphorus, No. 1011; Also, List of Lights, Part VI, 1906, page 189; and Sailing Directions for Japan, &c., 1904, pages 162, 177, 178.

AUSTRALIA—VICTORIA—HOBSON BAY.

Gellibrand point light—Date of exhibition—Buoys to be withdrawn.

No. 289 (second publication).—With reference to Notice to Mariners No. 142, dated 23rd April 1906, issued by this Office, the British Admiralty has given further notice (No. 746 of 1906) that a pile lighthouse having been constructed in the position formerly occupied by Gellibrand light vessel, viz.,—8 cables South from the green light on the breakwater extending from Gellibrand point, Hobson bay, on and after 1st August next, an occulting light every eighteen seconds, elevated 50 feet above high water, and visible in clear weather from a distance of 12 miles, will be established in that structure. It will show the following sectors:—red, fifteen seconds; eclipse, three seconds from the bearing of N. 63° E. to N. 39° E.; white, six seconds; red, three seconds; white, six seconds; eclipse, three seconds from

N 39° E, through north, to N. 33° W.; red, *fifteen seconds*; eclipse, *three seconds* from N. 33° W., through west, to S. 63° W.; white, *six seconds*; red, *three seconds*; white, *six seconds*; eclipse, *three seconds*, from S. 63° W., to South.

The undermentioned aids to navigation placed to mark the works in progress will be withdrawn on the same date:—

- a. The light-buoy exhibiting a *red fixed* light moored 400 feet eastward of the lighthouse constructing.
- b. The vessel from which rockets will be fired, during thick or foggy weather, moored 400 feet southward of the light-buoy.
- c. The *white fixed* light exhibited from the eastern end of the works whilst the lighthouse was under construction.
- d. The red flag displayed when pile driving was in progress.

Approximate position, lat. 37° 52½' S., long. 144° 55' E.

The exact position of the lighthouse is not stated.

(Variation 8° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—Port Philip, No. 1171b; Hobson Bay, No. 624; Also, List of Lights, part VI, 1906, No. 1320; Australia Directory, vol. I, 1897, page 459; and Supplement, 1900, page 17.

INDIA, WEST—BOMBAY COAST.

Bombay harbour approach—Present position of wrecked Schooner No. 1.

No. 290 (second publication). With reference to Notice to Mariners No. 261, dated 25th July 1906, issued by this Office, the Bombay Government has given further notice (No. 75 of 1906) that the position of the wrecked Schooner No. 1 now is about N. E. from the Light Vessel, one mile.

Bearings from the wreck are—

Light Vessel S. W. (T).
Malabar Point North (T).
Prongs Light House N. by E. (T).

AUSTRALIA—BROADMOUNT HARBOUR.

Fitzroy river, No. 3 Lead, Middle channel—Sandbank extending southward.

No. 291 (second publication).—The Portmaster, Brisbane, has given notice (No. 4 of 1906) that the small sandbank in No. 3 Lead, Middle Channel, Fitzroy River, having grown to the southward, the depth in the centre of the Lead is now only 7 feet 6 inches. Masters are therefore recommended to keep the dolphins of this Lead open their own width to the southward, when a depth of 19 feet at low water will be obtained.

Charts affected—Nos. 345 and 363, Australia Directory, vol. 2.

AUSTRALIA—PORT WAKEFIELD APPROACH.

Gulf of St. Vincent, east side—Existence of isolated and scattered rocks—Navigation dangerous.

No. 292 (second publication).—The President of the Marine Board, Port Adelaide, has given notice (No. 12 of 1906) that isolated and scattered rocks having at various times been reported as existing on the flats between Long Spit and Bald Hill, and some of them being said to have 6 feet less water over them than is shown on the chart, masters of vessels and others are hereby warned against navigating in less water than, say, 6 feet over their draught.

These flats, for about three miles seaward from high-water mark, may be considered as foul ground.

This affects Admiralty Chart No. 2389B.

AUSTRALIA—KANGAROO ISLAND.

Kingscote—Character of lights to be exhibited.

No. 293 (second publication).—The President of the Marine Board, Port Adelaide, has given notice (No. 13 of 1906) that in future the following lights will be exhibited at Kingscote, Kangaroo Island, viz.—

- (1) From a white painted house on the rise at the inner end of the jetty, a fixed white light showing to seaward over the jetty, and visible in clear weather a distance of eight (8) miles.
- (2) From a post on the outer end of the jetty, a light, showing red to seaward and white to landward over the jetty, at a height of thirteen (13) feet above H.-W., and visible in clear weather about four (4) miles.

The two lights in line lead over the Telegraph Bell Buoy, and bear from it N. 74° W. correct magnetic.

Approximate position of high light—Lat. 35° 40' S.; long. 137° 38' 30" E.

This affects Admiralty Chart No. 2389B.

The 10th August 1906.

INDIA WEST—BOMBAY COAST.

Bombay harbour approach.—A green painted "Wreck" buoy placed.

No. 294 (second publication).—In continuation of Notice to Mariners No. 290, dated the 10th August, issued by this office, the Bombay Government has given further notice, dated 8th idem, that a wreck buoy painted green with the word "Wreck" in white letters on its side has been placed on the East or Mid-channel side of the wreck of Pilot Schooner No. 1—From the buoy the following are True bearings:—

Prongs Light House	...	...	N. 94° E.
Bunk Rock Light House	...	...	N. 34° E.
Thull Knob Beacon	...	...	S. 70½° E.

The 13th August 1906.

INDIA, WEST—BOMBAY COAST.

Bankote Outer buoy adrift.

No. 269 (third publication).—The Bombay Government has given notice (No. 72 of 1906) that the Bankote outer buoy broke adrift from its moorings on the 23rd ultimo and was washed ashore at Velas, which is a village close to Bankote.

INDIAN OCEAN—MADAGASCAR—DIEGO SUAREZ BAY.

Antsirana light—Sectors established.

No. 270 (third publication).—The British Admiralty has given notice (No. 673 of 1906) that on 1st January last the red fixed light on Antsirana jetty, Diego Suarez bay, was altered to show the following sectors:—red from the bearing of S. 64° W. to S. 54° W., white from S. 54° W. to S. 47° W., green from S. 47° W. to S. 34° W., white from S. 34° W., through south and east, to N. 56° E., green from N. 56° E. to N. 7° E., being obscured in other directions; it is elevated 29 feet above high water.

Approximate position, lat. 12° 16' S., long. 49° 18' E.

(Variation 7° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Diego Suarez bay, No. 1116; plan of Port Nièvre on chart No. 1064; Also List of Lights, Part VI, 1906, No. 102, and Islands in the Southern Indian Ocean, 1904, page 62.

EASTERN ARCHIPELAGO—BORNEO, WEST COAST.

Pontianak river—Prohibited anchorage in approach marked by buoys and beacons.

No. 271 (third publication).—The British Admiralty has given notice (No. 678 of 1906) that anchorage is prohibited on account of telegraph cables in the approach to the Pontianak river, within the limits which are defined by imaginary lines drawn between two buoys now established and the shore:—

Southern buoy—

- (1) A white can buoy, marked "Telegraaf Kabel No. 1," has been moored in a position about 3 miles from the coast in approximately lat. $0^{\circ} 1' 25''$ S., long. $109^{\circ} 6' 25''$ E.

Northern buoy—

- (2) A white can buoy, marked "Telegraaf Kabel No. 2," has been moored about 2 cables N. 16° E. from the above buoy.

The limits are also marked by beacons on shore, but the position of the beacons is not given.

This Notice affects the following Admiralty Chart:—Eastern Archipelago, No. 941a: Also China Sea Directory, vol. II, 1899, page 39; and Supplement, 1901, page 3.

EASTERN ARCHIPELAGO—BORNEO, EAST COAST.

Balik Papan bay—Lights of prohibited anchorage altered—Buoy shifted.

No. 272 (third publication).—With reference to Notice to Mariners No. 85, dated 24th February 1905, issued by this office, the British Admiralty has given further notice (No. 679 of 1906) that the southern limit of the prohibited anchorage in Balik Papan bay has been altered so that it is now limited by a line extending S. 20° W. from the southern point of Tokong island to No. 4 buoy in the fairway. No. 4 buoy has therefore been replaced by the black buoy formerly situated at a distance of 18 cables S. 88° W. from the south point of Tokong. The northern limit is now a line drawn from the cable-house to the black buoy situated $14\frac{1}{2}$ cables N. 80° W. from the south point of Tokong island.

Approximate position, Tokong, lat. $1^{\circ} 16'$ S., long. $116^{\circ} 48'$ E.

(Variation 2° Westerly in 1906.)

This Notice affects the following Admiralty Plans:—Balik Papan bay and anchorage off the East point of Balik Papan bay on No. 3031: Also Eastern Archipelago, Part II, 1904, page 290.

PACIFIC OCEAN, SOUTH—TUAMOTO ARCHIPELAGO—TAKARAVA ATOLE.

Rotoava approach—Temporary beacons erected.

No. 273 (third publication).—With reference to Notice to Mariners No. 221, dated 26th June 1906, issued by this office, the British Admiralty has given further notice (No. 681 of 1906) that the beacon on the western point of the entrance to North passage, and other beacons in the approach to Rotoava having been destroyed by a cyclone, the following temporary beacons have been erected in the undermentioned positions:—

- (a) Three white beacons on Poniu, near the entrance to the North passage; vessels must pass to the southward of these beacons.
- (b) A white beacon on Togamaitu i tai, Togamaitu i uta, Tapaeroa, and Kopoapiro shoals.
- (c) A white beacon surmounted by a ball, on the shoal situated at a distance of $1\frac{1}{4}$ miles S. 58° W. from Rotoava light.
- (d) A white beacon on the shoal situated about $7\frac{1}{2}$ cables S. 16° W. from Rotoava light.

Approximate position, Rotoava light, lat. $16^{\circ} 24'$ S., long. $145^{\circ} 38\frac{1}{2}'$ W.

Mariners are warned that great care must be exercised in navigating these waters.

(Variation 8° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—Plan of Rotoava on chart No. 1175: Also Pacific Islands, vol. III, 1900, pages 133, 134; and Supplement, 1903, page 9.

FOG SIGNALS—ADMIRALTY LISTS OF LIGHTS.

Cautionary Notices.

No. 274 (*third publication*).—The following Notice to Mariners, issued by the British Admiralty (No. 682 of 1906), is republished for general information:—

As the cautionary Notices respecting fog-signals given in the Introductory notes in all copies of the Admiralty Lists of Lights do not appear to be quite understood, more especially the paragraphs pointing out that such signals are heard at greatly varying distances, and that there are occasionally areas around a fog-signal station in which the fog-signal is wholly inaudible, it is thought desirable to point out to seamen that not infrequently a fog-signal, which may be heard under favourable circumstances from a distance of 10 miles or upwards, is inaudible when only 2 or 3 miles off it, and that no surprise should be felt if, from a vessel, either at anchor, or underway, not far from a fog-signal station, the sound of the fog-signal is not heard on board.

CHINA, SOUTH COAST—HONG HAI BAY.

Sam Chau inlet—Outer bank extending—Leading beacons removed.

No. 275 (*third publication*).—The British Admiralty has given notice (No. 689 of 1906) that information has been received that soundings taken by the Chinese Revenue schooner *Peng tai*, on the 7th April 1906, show that the Outer bank in Sam Chau inlet is extending to the southward and westward. The channel is now not more than one cable in width, and is stated to have a depth of 31 feet at low water.

The leading beacons have been removed.

This inlet should not be entered without a previous examination of the entrance.

Approximate position, Outer bank, lat. $22^{\circ} 41' N.$, long. $114^{\circ} 59' E.$

This Notice affects the following Admiralty Chart:—*Sam Chau inlet*, No. 3459: *Also China Sea Directory*, vol. III, 1904, page 137.

EASTERN ARCHIPELAGO—SUMATRA, NORTH-EAST COAST.

Straits of Durian and Berhala—Light buoys established.

No. 276 (*third publication*).—With reference to Notice to Mariners No. 232, dated 26th June 1906, issued by this office, the British Admiralty has given further notice (No. 692 of 1906) that, on 19th and 18th of May 1906, respectively, the undermentioned light-buoys were established in the straits of Durian and Berhala in the following positions:—

- (a) **STRAIT OF DURIAN.** A light-buoy, painted white, exhibiting a *white occulting light every twenty seconds*, thus:—light, *ten seconds*; eclipse, *ten seconds*; on the north-eastern side of Richardson reef.

Approximate position, lat. $0^{\circ} 37\frac{1}{2}' N.$, long. $103^{\circ} 43' E.$

- (b) **BERHALA STRAIT.** A light-buoy, painted in red and black horizontal bands, exhibiting a *white occulting light every twenty seconds*, thus:—light, *ten seconds*; eclipse, *ten seconds*, on the south-eastern side of Speke rock.

Approximate position, lat. $0^{\circ} 37' S.$, long. $104^{\circ} 6' E.$

This Notice affects the following Admiralty Charts:—*Banka strait to Singapore*, No. 2757; *strait of Durian*, No. 2402; *channels between Sumatra and Linga*, No. 1789: *Also China Sea Directory*, vol. I, 1896, pages 557, 546; and *Supplement*, 1899, page 41.

CHINA, SOUTH-EAST COAST—PAGODA ISLAND.

Tongsang harbour—Shoal reported in entrance to—

No. 277 (*third publication*).—The British Admiralty has given notice (No. 696 of 1906) that the Master of S.S. *Yunnan* reports that his vessel struck on a shoal, with a depth of 13 feet over it at low-water spring tides, in entrance to Tongsang harbour, in a position 2 miles south from the pagoda on Pagoda island. A sounding of 8 fathoms was obtained immediately before striking.

Approximate position, lat. $23^{\circ} 42' N.$, long. $117^{\circ} 32\frac{1}{2}' E.$

(Variation nil in 1906.)

This Notice affects the following Admiralty Charts:—*Formosa island, &c.*, No. 1968; *The Brothers to Ocksen islands*, No. 1780; *Tongsang harbour*, No. 1958: *Also China Sea Directory*, vol. III, 1904, page 162.

PACIFIC OCEAN—PHILIPPINE ISLANDS—NEGROS AND LEITE.

Dumaguete and Kanigao islands—Lights established.

No. 278 (third publication).—The British Admiralty has given notice (No. 699 of 1906) that lights have been established at the undermentioned places in the Philippine islands:—

- (a) DUMAGUETE, NEGROS ISLAND. A red fixed light, elevated 38 feet above high water, visible in clear weather from a distance of 7 miles, from the bearing of S. 27° W., through west, to N. 15° W., and exhibited from a white framework tower, 34 feet high, erected near the beach at Dumaguete.

Approximate position, lat. 9° 18½' N., long. 123° 17½' E.

- (b) KANIGAO ISLAND, LEITE ISLAND. A red fixed light, elevated 62 feet above high water, visible in clear weather from a distance of 9 miles, and exhibited from a white framework tower, 52 feet high, erected on the north-eastern point of Kanigao island.

Approximate position, lat. 10° 15' N., long. 124° 44½' E.

The positions refer to chart No. 2578.

(Variation 1° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—The Philippine islands, No. 943; Sulu or Mindoro sea, No. 2578; Also List of Lights, Part VI, 1906, pages 101, 103; Eastern Archipelago, Part I, 1902, pages 274, 290; and Supplement, 1903, page 20.

ST. L. S. WARDEN, COMMDR., R.I.M.,
Port Officer of Calcutta.



APPENDIX TO

The Calcutta Gazette.

WEDNESDAY, AUGUST 29, 1906.

NOTICES TO MARINERS.

THE following Notices are published for general information.

CALCUTTA, the 28th August 1906.

W. A. INGLIS,
Secy. to the Govt. of Bengal.

AFRICA, NORTH-EAST—RED SEA.

Shoal reported.

No. 304 (first publication).—The Bombay Government has given notice (No. 82 of 1906) that the Master of *S. S. Africa* reported that on 26th July 1906; the ship was observed in shoal water and on sounding obtained 2 fathoms on the following bearings:—

N. W. Point Ras Mujamela Island N. $27\frac{1}{2}^{\circ}$ E. (T).
Extreme South Point of above Island S. 78° E. (T).

Soundings obtained from $1\frac{1}{2}$ fathoms, gradually increasing to the eastward up to 4 and 5 fathoms.

Approximate position—

Latitude $14^{\circ}33\frac{1}{2}'$ N.
Longitude $42^{\circ}52\frac{1}{2}'$ E.

This notice affects the following Admiralty Charts:—Red Sea (General Chart), No. 2523; Red Sea, Sheet V, No. 8E; and Jabel Teir to Perim Island, No. 143; also Red Sea and Gulf of Aden Pilot, fifth edition, 1900, pages 337.

AFRICA, NORTH-EAST—GULF OF ADEN.

Aden anchorage—Channel buoys.

No. 305 (first publication).—The Bombay Government has given notice (No. 83 of 1906) that on the 20th August 1906, the three Port hand Channel buoys in the inner harbour of Aden will be moved and relaid on the following bearings:—

1. Western buoy—from old position	...	... S. $55\frac{1}{2}^{\circ}$ E. (T) 25 yards.
Ras Marbut Flagstaff	...	... S. 40° E. (T).
Residency Flagstaff	...	... S. $17\frac{3}{4}^{\circ}$ E. (T).
Clock Tower	...	... S. $78\frac{1}{4}^{\circ}$ E. (T).
Flagstaff Tarshein Point	...	... S. 2° E. (T).
Quarantine Island Flagstaff	...	... N. $83\frac{1}{2}^{\circ}$ E. (T).

2. Centre buoy—from old position	...	... S. 17½° W. 110 yards.
Ras Marbut Flagstaff	...	... S. 8½° W. (T).
Clock Tower	...	... S. 6½° E. (T).
Signal Station Flagstaff	...	... S. 21½° E. (T).
Quarantine Island Flagstaff	...	... N. 88° E. (T).
3. Eastern buoy—from old position	...	... South (T) 67 yards.
Ras Marbut Flagstaff	...	... S. 39½° W. (T).
Clock Tower	...	... S. 27½° W. (T).
Signal Station Flagstaff	...	... S. 10° W. (T).
Quarantine Island Flagstaff	...	... S. 80½° E. (T).

This notice affects the following Admiralty Charts:—Gulf of Aden, Sheet II, Western portion No. 6C; Aden and adjacent bays. Aden Anchorage, No. 7; Red Sea, Sheet V, No. 8E; and Arabian Sea, No. 1012; and Red Sea and Gulf of Aden Pilot, fifth edition, 1900, page 350, and Supplement, 1904, relating to Red Sea and Gulf of Aden Pilot, page 39.

NEW ZEALAND—NORTH ISLAND, WEST COAST.

Kaipara bar—Additional beacon erected.

No. 306 (first publication).—With reference to Notice to Mariners No. 198, dated 10th June 1905, issued by this office, the British Admiralty has given further notice (No. 790 of 1906) that the front of the two beacons erected on the North Head, Kaipara harbour, being difficult to distinguish, a middle and larger beacon, 42 feet high, has been erected at a distance of 1½ cables N. 52° E., from the front beacon. The heights of the beacons are—front beacon 32 feet, middle beacon 44 feet, rear beacon 42 feet. These beacons in line N. 52° E. lead over the bar.

Approximate position, lat. 36° 28' S., long. 174° 8½' E.

(Variation 13° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Kaipara harbour, No. 2614:—Also New Zealand Pilot, 1901, page 244; and Supplement, 1903, page 24.

INDIA, SOUTH—CEYLON, WEST COAST.

Colombo harbour—Northern passage open.

No. 307 (first publication).—The British Admiralty has given Notice (No. 791 of 1906) that the northern entrance between the North-east and North-west breakwaters, Colombo harbour, is open for the passage of vessels.

Further Notice will be given when information respecting the lighting of this passage has been received.

Approximate position, lat. 6° 58' N., long. 79° 51' E.

This Notice affects the following Admiralty Chart:—Colombo harbour, No. 914: Also West Coast of Hindustan Pilot 1898, page 95; Supplement, 1903, page 5; Bay of Bengal Pilot, 1901, page 73; and Supplement, 1903, page 1.

AFRICA, EAST COAST—TANGA HARBOUR.

Lights established.

No. 308 (first publication).—The British Admiralty has given notice (No. 798 of 1906) that a green fixed light is exhibited from the flagstaff in front of the Custom House, Tanga.

Approximate position of Custom House on chart No. 663, lat. 5° 4½' S., long. 39° 6½' E.

Also, that two white fixed lights are exhibited from two iron poles situated at each extremity of the iron pier.

This Notice affects the following Admiralty Charts:—Mansa and Tanga bays, No. 663: Also, Light of Lights Part VI, 1903, page 13; and Africa Pilot, Part III, 1905, page 456.

PACIFIC OCEAN, SOUTH—NEW CALEDONIA.

Port Noumea: approach—Beacon disappeared.

No. 309 (first publication).—The British Admiralty has given notice (No. 805 of 1905) that the iron beacon on the westernmost of the Four Northern banks, port Noumea approach, formerly situated about $7\frac{1}{2}$ miles S. 40° E. from port Noumea flagstaff, has disappeared.

Approximate position of flagstaff, lat. $22^{\circ} 16\frac{1}{2}'$ S., long. $166^{\circ} 26\frac{1}{2}'$ E.

(Variation 10° Easterly in 1905.)

This Notice affects the following Admiralty Charts:—*Uen island to St. Vincent bay*, No. 2907; *approaches to port Noumea*, No. 2069: Also *Pacific Islands*, vol. II, 1900, page 310.

CHINA, EAST COAST—FUCHAU.

Min river—Rock reported in approach.

No. 310 (first publication).—The British Admiralty has given notice (No. 810 of 1906) that a rock, with a depth over it of $1\frac{1}{2}$ fathoms at low-water springs, is reported to exist in the approach to the river Min, situated at a distance of 11 cables N. 10° W. from the summit (295 feet) of Chingau island. No bearings are given: the position therefore must be considered approximate.

Approximate position, lat. $26^{\circ} 15\frac{1}{2}'$ N., long. $119^{\circ} 59\frac{1}{2}'$ E.

(Variation 1° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Ocknou island to Tung yung*, No. 1761; *River Min*, No. 2490: Also *China Sea Directory*, vol. III, 1904, page 269.

JAPAN—KIUSIU, WEST COAST.

Nagasaki harbour—Shoal in approach—Beacon disestablished—Colour of buoy.

No. 311 (first publication).—The British Admiralty has given notice (No. 813 of 1906) of the existence of a shoal, with a depth of $5\frac{1}{2}$ fathoms over it, in the southern approach to Nagasaki harbour, situated in a position from which Kajikake beacon bears S. 38° W., distant $1\frac{1}{2}$ cables, and the northern end of Goroye shima S. 76° E.

Approximate position, lat. $32^{\circ} 41\frac{1}{2}'$ N., long. $129^{\circ} 49\frac{1}{2}'$ E.

Also, that the beacon marking Minage zabi, Nagasaki harbour, has been removed.

NOTE.—On certain copies of Admiralty Chart No. 2815 the colour of the buoy marking Osone, situated about 6 cables S. 28° E. from Nesumi jima, is shown as red, instead of red and black horizontal bands.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Nagasaki harbour*, Nos. 2415 and 2815: Also *Sailing Directions for Japan*, &c., 1904, pages 550, 551, 552.

BAY OF BENGAL—CHITTAGONG COAST.

South Patches light-vessel placed in position.

No. 295 (second publication).—In continuation of Notice to Mariners No. 26, dated the 12th January 1906, issued by this office, the Port Officer, Chittagong, has given further notice that the South Patches light-vessel was placed in position on the 15th August.

AUSTRALIA, SOUTH—PORT ADELAIDE RIVER.

Dredged channel—Light beacons established.

No. 296 (second publication).—With reference to Notice to Mariners No. 242, dated the 3rd July 1906, issued by this office, the British Admiralty has given further notice (No. 762 of 1906) that the erection of light beacons on the port side of the dredged channel when entering Port Adelaide river has been completed. These beacons are painted black, each exhibiting fixed light showing green over the channel and white towards the shore. They

are marked G and numbered 0 to 9, commencing from seaward. Each beacon stands 15 feet clear of the channel. No. 0 G. is placed about $3\frac{1}{2}$ cables S 58° W. from the Reflecting beacon at the entrance to the channel. No. 1 G. is about a quarter of a cable S. 51° W. from the Reflecting beacon. No. 2 G. is situated opposite the closed channel about one mile N. 31° E. from the Reflecting beacon. The remaining beacons are placed opposite the beacon of the corresponding number on the other side of the channel.

The red light on the beacon situated 13 cables N. 35° E. from the Reflecting beacon would, on the 1st June, be discontinued.

The dredged channel is now marked throughout by red beacons exhibiting *white fixed* lights on the starboard hand on entering, and black beacons exhibiting *green fixed* lights on the port hand.

Approximate position, Reflecting beacon, lat. $34^{\circ} 47\frac{1}{2}'$ S., long. $138^{\circ} 28\frac{1}{2}'$ E.

(Variation 5° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—Port Adelaide, No. 1750. Also, List of Lights, Part VI, 1906, page 206; and Australia Directory, vol. I, 1897, page 352.

STRAITS SETTLEMENTS—SINGAPORE, EASTERN APPROACH, MIDDLE CHANNEL.

Lima islands—Shoal reported south-east of—.

No. 297 (second publication).—The British Admiralty has given notice (No. 769 of 1906) that the Master of the S.S. *Fallodon* reports that his vessel struck on a reef, with a depth of 3 fathoms over it, when at a distance of about 6 cables south-eastward from Stork reef, Lima islands, in approximately lat. $1^{\circ} 21\frac{1}{4}'$ N., long. $104^{\circ} 19\frac{1}{4}'$ E.

P.D. has been placed against this shoal on the chart.

Mariners are recommended to give these islands a wide berth.

This Notice affects the following Admiralty Charts:—Banka strait to Singapore, No. 2757; approaches to Singapore, No. 3548; Singapore to Tioman island, No. 2041; Singapore strait, No. 2403: Also, China Sea Directory, vol. I, 1896, page 237.

AUSTRALIA, NORTH-WEST COAST—KING SOUND.

Sunday strait—Shoal reported.

No. 298 (second publication).—The British Admiralty has given notice (No. 770 of 1906) that a reef, with a depth of about one foot over it at low water, is reported to exist in Sunday strait, King sound, in approximately lat. $16^{\circ} 27\frac{1}{4}'$ S., long. $123^{\circ} 16\frac{1}{4}'$ E. "Reported 1906" has been placed against this shoal on the charts. This position, for which no bearings are furnished, might be identical with Amur reef, which is placed on the chart approximately.

This Notice affects the following Admiralty Charts:—Buccancer archipelago to Bedout island, No. 1048; Hall point to cape Bertholet, No. 1052: Also, Australia Directory, vol. III, 1905, page 192.

EASTERN ARCHIPELAGO—SUMATRA, NORTH COAST.

Pulo Bras group—Dangers in the vicinity.

No. 299 (second publication).—The British Admiralty has given notice (No. 774 of 1906) of the existence of the undermentioned dangers, and the non-existence of another, in the vicinity of the Pulo Bras islands, as follows:—

- (1) Lampoujang strait. The shoals at the western entrance to this strait, off the north-western point of Nasi Besar, extend about half a cable further out than shown on the chart. There is a depth of $3\frac{1}{2}$ fathoms on this extension.

At a distance of $4\frac{1}{2}$ cables S. 75° W. from the south point of Pulo Bras is the south-eastern extremity of a ridge, which extends from this position $4\frac{1}{2}$ cables in a north-westerly direction, having a breadth of about four-tenths of a cable. The least depth found on this ridge was $2\frac{1}{2}$ fathoms at low-water springs.

Approximate position, Pulo Bras, south point, lat. $5^{\circ} 39\frac{1}{4}'$ N., long. $95^{\circ} 10\frac{1}{4}'$ E.

- (2) Gepon islets. The reef extending to the southward from these islets does not exist.

Approximate position, lat. $5^{\circ} 36' N.$, long. $95^{\circ} 5' E.$

- (3) The least depth on the shoal of $4\frac{1}{2}$ fathoms between Pulo Batu and Pulo Kelapa was found to be $2\frac{1}{2}$ fathoms.

Approximate position, lat. $5^{\circ} 33\frac{1}{2}' N.$, long. $95^{\circ} 12\frac{1}{2}' E.$

The positions refer to chart No. 219.

(Variation 1° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—*Acheh head to Diamond point, with plan of Lampujang strait, No. 219*: Also, *China Sea Directory, vol. I, 1896, pages 43, 44.*

CHINA, NORTH—YELLOW SEA—MANCHURIA.

Port Arthur or Lushan Kau approach—Shoal off Lao Lui Chui.

No. 300 (second publication).—The British Admiralty has given notice (No. 782 of 1906) of the existence of a rock, with a depth of $4\frac{1}{2}$ fathoms over it, in the approach to Port Arthur, situated in a position from which Lao Lui Chui bears N. $36^{\circ} W.$, distant $2\frac{1}{4}$ cables. At a distance of about four-tenths of a cable north-westward from this rock there is a rocky head with a depth of $2\frac{1}{2}$ fathoms over it; there is a depth of 9 fathoms between them, and from 12 to 17 fathoms around both rocks.

Approximate position, lat. $38^{\circ} 4' N.$, long. $121^{\circ} 19\frac{1}{2}' E.$

(Variation $\frac{1}{2}^{\circ}$ Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Pechili strait, No. 1392*; *Kwantung peninsula, No. 1798*: Also, *China Sea Directory, vol. III, 1904, pages 591, 592.*

CHINA, NORTH—YELLOW SEA—MANCHURIA.

Port Arthur or Lushan Kau—Wreck in approach.

No. 301 (second publication).—The British Admiralty has given notice (No. 783 of 1906) that a wreck, with a depth of 10 fathoms over the hull, lies sunk in the approach to Port Arthur, situated in a position from which the 515 foot hill south-westward of Chikwan shan bears N. $15^{\circ} W.$, distant $1\frac{1}{4}$ miles, and the Port Arthur light, western side of entrance, N. $22^{\circ} E.$ There is no mention of masts projecting in the Notice received.

Approximate position, lat. $38^{\circ} 44\frac{1}{2}' N.$, long. $121^{\circ} 14\frac{1}{2}' E.$

(Variation $\frac{1}{2}^{\circ}$ Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Gulf of Pechili, No. 1799*; *Kwantung peninsula, No. 1392*; *Port Arthur, No. 1236*: Also, *China Sea Directory, vol. III, 1904, page 592.*

JAPAN—GULF OF TARTARY—KARUFUTO (SAKHALIN) ISLAND SOUTH COAST.

Kushunkotan (Korsakovsk) road—Light established—Storm signals.

No. 302 (second publication).—The British Admiralty has given notice (No. 784 of 1906) that a white fixed light, elevated 201 feet above high water, and visible in clear weather from a distance of 12 miles, has been established on a white staff, 18 feet high, in place of the former light exhibited on the hill to the northward of Kushunkotan or Korsakovsk.

Approximate position, lat. $46^{\circ} 38\frac{1}{2}' N.$, long. $142^{\circ} 45\frac{1}{2}' E.$

A storm signal station has been established at Kushunkotan. The church, the beacons, and the mill at Kushunkotan, and the beacons at Poroan tomari (Ainscoe settlement), $1\frac{1}{2}$ miles to the southward, have all disappeared.

This Notice affects the following Admiralty Chart:—*Plan of Korsakovsk road on char, No. 2192*: Also, *List of Lights, part VI, 1906, No. 1165*; and *Sailing Directions for Japan etc., 1907, pages 238, 239.*

BAY OF BENGAL—CHITTAGONG COAST.

Karnafuli river—Depth of water in the channels.

No. 303 (second publication).—The Port Officer, Chittagong, has given notice that the following depth of water was found in the channels by soundings taken on the 17th August and reduced to zero :—

					FT. IN.
Track No. 1—Outer bar—					
Disc on diamond	...	...	...	...	14 0
Track No. 2—Inner bar—					
Disc on diamond	...	...	...	...	11 6
Batten beacon on pillar	...	...	...	...	12 6
Track No. 3—					
Triangle on cross and ball	...	...	...	...	20 0
Track No. 4—Guptakhally crossing—					
Tripod on diamond	...	...	...	...	20 0

The 26th August 1906.

JAPAN—NAIKAI (INLAND SEA).

Shimonoseki (Simonoseki) strait, Moji shoal—Alteration in position of light-buoys.

No. 279 (third publication).—With reference to Notice to Mariners No. 309, dated 12th August 1905, issued by this office, the British Admiralty has given further notice (No. 708 of 1906) that the light-buoy, marking the north-east end of Moji shoal, situated at a distance of $6\frac{1}{2}$ cables S. 73° E. from the Observation spot, Simonoseki, has been moved about half a cable N. 34° E. from its former position, and is now situated at a distance of $6\frac{1}{2}$ cables S. 78° E. from the Observation spot.

Also, that the light-buoy, marking the south-west end of Moji shoal, situated at a distance of $5\frac{1}{2}$ cables S. 23° E. from the Observation spot, has been moved about three-quarters of a cable South from its former position, and is now situated at a distance of 6 cables S. 20° from the Observation spot.

Approximate position, Observation spot, lat. $33^{\circ} 57\frac{1}{2}'$ N., long. $130^{\circ} 56\frac{1}{2}'$ E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Simonoseki strait*, Nos. 532 and 1578; *Moji ko*, No. 3114; Also *Sailing Directions for Japan*, 1904, page 502.

JAPAN—GULF OF TARTARY—KARAFUTO (SAKHALIN) ISLAND, WEST COAST.

Lesovskago bay—Shoal reported.

No. 280 (third publication).—The British Admiralty has given notice (No. 707 of 1906) that a shoal having a depth of 2 fathoms over it is reported to exist in Lesovskago bay, in approximately lat. $49^{\circ} 14'$ N., long. $142^{\circ} 1'$ E.

This shoal, which is composed of hard sand and mud, is one mile long in a northerly and southerly direction and 5 cables broad, the general depths over it are from 2 to 3 fathoms and there is a depth of 4 fathoms on its southern end, but the northern end was not examined.

This Notice affects the following Admiralty Charts:—*Gulf of Tartary*, No. 3340; Also, *Sailing Directions for Japan*, &c., 1904, page 231.

KOREA, WEST COAST.

Taidong kang (Ping Yang inlet)—Extension of sand bank.

No. 281 (third publication).—The British Admiralty has given notice (No. 708 of 1906) that a sand bank, with a depth of 2 fathoms over it at low water, is reported to exist in the entrance to Taidong kang or Ping yang inlet, in a position from which the north-western point of Dau chen bears S. 56° W., distant 11 cables, and the north-eastern point of the same island S. 22° E. This sand bank appears to be connected with the line of shoals extending westward from Utt chu ra to.

Approximate position, lat. $38^{\circ} 40\frac{1}{2}'$ N., long. $125^{\circ} 0\frac{1}{2}'$ E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—*Approaches to Ping yang inlet*, No. 1257; *Ping yang inlet*, No. 1656; Also, *Sailing Directions for Japan*, &c., 1904, pages 39-41.

AUSTRALIA—NEW SOUTH WALES.

Newcastle harbour—Decreased depth in entrance.

No. 282 (*third publication*).—With reference to Notice to Mariners No. 439, dated 20th December 1904, issued by this office, the British Admiralty has given further notice (No. 713 of 1906) that as the depths in the fairway of the entrance to Newcastle harbour have decreased, the signals made from the Pilot station will, until further notice, indicate each foot of rise or fall above 18 feet, and not 20 feet as before.

When abreast Nobby head vessels will find rather more water to the southward of the leading line of the towers.

Approximate position, lat. $32^{\circ} 55'$ S., long. $151^{\circ} 48'$ E.

This Notice affects the following Admiralty Chart:—*Newcastle harbour*, No. 2119: Also *Australia Directory*, vol. II, 1898, page 80.

EASTERN ARCHIPELAGO—SUMATRA—MALACCA STRAIT—THE BROTHERS.

Pulo Hiju Kechil—Light established.

No. 283 (*third publication*).—With reference to Notice to Mariners No. 120, dated 7th April 1906, issued by this office, the British Admiralty has given further notice (No. 715 of 1906) that a *white flashing light, every twenty seconds*, thus:—light, *four seconds*, eclipse, *sixteen seconds*, elevated 131 feet above high water and visible in clear weather from a distance of 17 miles, has been established in a white framework iron structure, 44 feet high, having at its base a white wooden dwelling with red tiled roof, erected on Pulo Hiju Kechil, the easternmost of the Brothers islands.

The light is of the 4th order and produced by acetylene gas.

Approximate position, lat. $1^{\circ} 11\frac{1}{2}'$ N., long. $103^{\circ} 21\frac{1}{2}'$ E.

This Notice affects the following Admiralty Charts:—*Malacca strait*, No. 1355; *cape Rachado to Singapore*, No. 795; *approaches to Singapore*, No. 3543; *Singapore strait*, No. 2403; also *List of Lights, Part VI*, 1906, page 71; *China Sea Directory*, vol. I, 1896, page 113; and *Supplement*, 1899, page 12.

CHINA, EAST COAST.

Lanock islands—Shoal westward of—

No. 284 (*third publication*).—The following Notice to Mariners (No. 721 of 1906) issued by the British Admiralty is republished:—

Information, dated 14th May 1906, has been received from Commander E. LaT. Leatham, H.M.S. *Alicia*, that when westward of Lanock islands a sounding of 6 fathoms was obtained from on board his vessel, in a position from which Sul rook bore N. 36° W., distant $5\frac{1}{2}$ miles.

Approximate position, lat. $23^{\circ} 13\frac{1}{2}'$ N., long. $117^{\circ} 10\frac{1}{2}'$ E.

Vessels should avoid this shoal as there may be less water on it.

(Variation Nil in 1906.)

This Notice affects the following Admiralty Charts:—*Hong-Kong to the Brothers*, No. 1962; *Namoa island*, No. 1957; also *China Sea Directory*, vol. III, 1904, page 158.

INDIAN OCEAN—MADAGASCAR, WEST COAST.

Tuléar bay—Shoal extending—Beacons altered.

No. 285 (*third publication*).—The British Admiralty has given notice (No. 724 of 1906) that the shoal off Anosi point at the mouth of the river Fihorenana is extending seaward, the shoal water now having reached the peaked line denoting the fairway. This line requires moving slightly to the westward.

The beacon westward of Anosi and the Anosi flagstaff, 6 cables to the eastward of it, have disappeared, but a wooden tripod beacon, the position of which has not been determined, has been erected in this vicinity.

A pole beacon, surmounted by a diamond shape painted white, has been erected on the coast N. 53° W. from Table mountain. This beacon in line with Table mountain S. 53° E. leads up to the entrance of Tulléar channel until Great Reef beacon bears south, whence the course should be altered as requisite.

Approximate position, Tulléar channel, lat. 23° 21' S., long. 43° 37' E.

(Variation 15° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—*St. Augustine and Tulléar bays, No. 694: also Islands of the Southern Indian Ocean, 1904, page 251.*

KOREA, WEST COAST.

Amu Nyoku kan (Yalu river)—Buoys established in southern approach.

No. 286 (third publication).—The British Admiralty has given notice (No. 725 of 1906) that the undermentioned buoys have been established in the southern approach to Amu Nyoku kan or Yalu kiang in the following positions:—

- (1) A black conical buoy with topmark, marked No. 1, in approximately lat. 39° 35½' N., long. 124° 22¾' E.
- (2) A light-buoy, painted red, marked No. 2, exhibiting a *white fixed* light, in approximately lat. 39° 30½' N., long. 124° 21¾' E.
- (3) A black conical buoy with topmark, marked No. 3, in approximately lat. 39° 45½' N., long. 124° 24½' E.
- (4) A red conical buoy with topmark, marked No. 4, in approximately lat. 39° 46' N., long. 124° 24¾' E.
- (5) A black conical buoy, marked No. 7, in approximately lat. 39° 46¾' N., long. 124° 24' E.
- (6) A black conical buoy, marked No. 9, in approximately lat. 39° 47½' N., long. 124° 23½' E.

This Notice affects the following Admiralty Charts:—*Pe chili and Liau tung gulfs No. 1256; approaches to Ping Yang inlet, No. 1256; also Sailing Directions for Japan, etc. 1904, page 57; and China Sea Directory, vol. III, 1904, page 577.*

CHINA, SOUTH-EAST COAST.

Good Hope cape—Shoal to the north eastward.

No. 287 (third publication).—The British Admiralty has given notice (No. 731 of 1906) of the existence of a rock, with a depth of 4½ fathoms over it, situated at a distance of about 5 cables N. 75° E. from Good Hope cape light-house in the approach to Swatau. This shoal, which is about one mile in extent, is still under examination: less water may therefore be found over it.

Approximate position on chart No. 854, lat. 23° 14½' N., long. 116° 49' E.

(Variation Nil in 1906.)

This Notice affects the following Admiralty Charts:—*Hong Kong to the Brothers, No. 1962; Namoa island, No. 1967; port of Swatau, No. 854: Also, China Sea Directory, vol. III, 1904, page 147.*

JAPAN SEA—PETER THE GREAT BAY.

Caution—Vladivostock approach—Submarine mines.

No. 288 (third publication).—The British Admiralty has given notice (No. 737 of 1906) that submarine mines were laid during the late war between Russia and Japan by both belligerents, extending apparently as far southward in Ussuri bay as a line joining Askold island to the Rimskago Korsakofa islands, a distance of about 40 miles. Damage has been caused to several steam-vessels approaching Vladivostock from the south-eastward by coming in contact with either fixed or drifting mines.

The Russian Government has given Notice, dated 6th June 1906, that a temporary *white fixed* light was established on 4th May last, in a light-house in course of construction on Cape Gamova, to assist in the navigation of the channel to Vladivostock by its western approach through Amur bay, which channel should be used until notice is issued that the eastern approach is free from danger.

Vessels, therefore, bound to Vladivostok should make cape Gamova. According to a Berlin Notice, the route thence to be followed is to pass westward of Rimskago Korsakofa, Stenin, and Tsivolko, with Popova and Kozakevicha close aboard, to the Eastern Bosphorus.

A fog siren would be established, probably in June, at Gamova light-house.

Approximate position lat. $42^{\circ} 33\frac{1}{2}'$ N., long. $131^{\circ} 12\frac{1}{2}'$ E.

This Notice affects the following Admiralty Charts:—*Tumen Ula to Strelak bay*, No. 2432; *Trinity bay to Eastern Bosphorus*, No. 511; *Ussuri bay*, No. 288; *Eastern Bosphorus*, No. 1011; Also, *List of Lights, Part VI*, 1906, page 189; and *Sailing Directions for Japan, &c.*, 1904, pages 162, 177, 178.

AUSTRALIA—VICTORIA—HOBSON BAY.

Gellibrand point light—Date of exhibition—Buoys to be withdrawn.

No. 289 (third publication).—With reference to Notice to Mariners No. 142, dated 23rd April 1906, issued by this Office, the British Admiralty has given further notice (No. 746 of 1906) that a pile lighthouse having been constructed in the position formerly occupied by Gellibrand light vessel, viz.,—8 cables South from the green light on the breakwater extending from Gellibrand point, Hobson bay, on and after 1st August next, an occulting light every eighteen seconds, elevated 50 feet above high water, and visible in clear weather from a distance of 12 miles, will be established in that structure. It will show the following sectors:—red, fifteen seconds; eclipse, three seconds from the bearing of N. 63° E. to N. 39° E.; white, six seconds; red, three seconds; white, six seconds; eclipse, three seconds from N. 39° E., through north, to N. 33° W.; red, fifteen seconds; eclipse, three seconds from N. 33° W., through west, to S. 63° W.; white, six seconds; red, three seconds; white, six seconds; eclipse, three seconds, from S. 63° W., to South.

The undermentioned aids to navigation placed to mark the works in progress will be withdrawn on the same date:—

- a. The light-buoy exhibiting a red fixed light moored 400 feet eastward of the lighthouse constructing.
- b. The vessel from which rockets will be fired, during thick or foggy weather, moored 400 feet southward of the light-buoy.
- c. The white fixed light exhibited from the eastern end of the works whilst the lighthouse was under construction.
- d. The red flag displayed when pile driving was in progress.

Approximate position, lat. $37^{\circ} 52\frac{1}{2}'$ S., long. $144^{\circ} 55'$ E.

The exact position of the lighthouse is not stated.

(Variation 8° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Port Philip*, No. 1171b; *Hobson bay*, No. 624; Also, *List of Lights, part VI*, 1906, No. 1320; *Australia Directory*, vol. I, 1897, page 459; and *Supplement*, 1900, page 17.

INDIA, WEST—BOMBAY COAST.

Bombay harbour approach—Present position of wrecked Schooner No. 1.

No. 290 (third publication). With reference to Notice to Mariners No. 261, dated 25th July 1906, issued by this Office, the Bombay Government has given further notice (No. 75 of 1906) that the position of the wrecked Schooner No. 1 now is about N. E. from the Light Vessel, one mile

Bearings from the wreck are—

- Light Vessel S. W. (T).
- Malabar Point North (T).
- Prongs Light House N. by E. (T).

AUSTRALIA—BROADMOUNT HARBOUR.

Fitzroy river, No. 3 Lead, Middle channel—Sandbank extending southward.

No. 291 (third publication).—The Portmaster, Brisbane, has given notice (No. 4 of 1906) that the small sandbank in No. 3 Lead, Middle Channel, Fitzroy River, having grown to the southward, the depth in the centre of the Lead is now only 7 feet 6 inches. Masters are therefore recommended to keep the dolphins of this Lead open their own width to the southward, when a depth of 19 feet at low water will be obtained.

Charts affected—Nos. 345 and 363, *Australia Directory*, vol. 2.

AUSTRALIA—PORT WAKEFIELD APPROACH.

Gulf of St. Vincent, east side—Existence of isolated and scattered rocks—Navigation dangerous.

No. 292 (third publication).—The President of the Marine Board, Port Adelaide, has given notice (No. 12 of 1906) that isolated and scattered rocks having at various times been reported as existing on the flats between Long Spit and Bald Hill, and some of them being said to have 6 feet less water over them than is shown on the chart, masters of vessels and others are hereby warned against navigating in less water than, say, 6 feet over their draught.

These flats, for about three miles seaward from high-water mark, may be considered as foul ground.

This affects Admiralty Chart No. 2389B.

AUSTRALIA—KANGAROO ISLAND.

Kingscote—Character of lights to be exhibited.

No. 293 (third publication).—The President of the Marine Board, Port Adelaide, has given notice (No. 13 of 1906) that in future the following lights will be exhibited at Kingscote, Kangaroo Island, viz.—

- (1) From a white painted house on the rise at the inner end of the jetty, a fixed white light showing to seaward over the jetty, and visible in clear weather a distance of eight (8) miles.
- (2) From a post on the outer end of the jetty, a light, showing red to seaward and white to landward over the jetty, at a height of thirteen (13) feet above H.-W., and visible in clear weather about four (4) miles.

The two lights in line lead over the Telegraph Bell Buoy, and bear from it N. 74° W. correct magnetic.

Approximate position of high light—Lat. 35° 40' S.; long. 137° 38' 30" E.

This affects Admiralty Chart No. 2389B.

The 10th August 1906.

INDIA WEST—BOMBAY COAST.

Bombay harbour approach.—A green painted "Wreck" buoy placed.

No. 294 (third publication).—In continuation of Notice to Mariners No. 290, dated the 10th August, issued by this office, the Bombay Government has given further notice, dated 8th idem, that a wreck buoy painted green with the word "Wreck" in white letters on its side has been placed on the East or Mid-channel side of the wreck of Pilot Schooner No. 1—From the buoy the following are True bearings:—

Prongs Light House	...	...	N. 9½° E.
Sunk Rock Light House	...	...	N. 84° E.
Thull Knob Beacon	...	...	S. 70½° E.

The 13th August 1906.

ST. L. S. WARDEN, COMMDR., R.I.M.,
Port Officer of Calcutta.



APPENDIX TO

The Calcutta Gazette.

WEDNESDAY, SEPTEMBER 5, 1906.

NOTICES TO MARINERS.

The following Notices are published for general information.

CALCUTTA, the 28th August 1906.

W. A. INGLIS,
Secy. to the Govt. of Bengal.

CHINA, NORTH—MANCHUKIA, SOUTH COAST.

Ta lien hwan—Limits of, and Regulations for—

No. 312 (first publication).—The British Admiralty has given notice (No. 123 of 1906) that the following regulations are in force respecting Ta lien hwan, which has been divided into the undermentioned districts:—

DISTRICTS.

- (a) The first district is the water area westward of an imaginary line running S. 16° W. from the eastern extremity of Liu shu tun to West Entry point.
- (b) The second district is the water area included between the Eastern boundary of the first district and two imaginary lines, the first running in a N. 18° E. direction from the Eastern extreme of San shan tau to the islet on the northern side of Inner channel, and the second in a N. 87° W. direction from San shan tau light to South Entry point.
- (c) The third district is the water area included between the outer lines of the second district and the following imaginary lines: first a line running in a N. 35° E. direction from San shan tau light-house through the islet off Hooper point to Robinson point; secondly, a line running in a S. 72° W. direction from San shan tau light-house to the islet off Oap island, and, thirdly, by a line running in a N. 73° W. direction from the islet to the south-western extremity of Ping tu tau.
- (d) Ta lien hwan roadstead is in Victoria bay, and extends about one mile to the northward of Panter point.

Approximate position of San shan tau light, lat. 38° 51½' N., long. 121° 50½' E.

1. Foreign vessels are prohibited from passing the outer limits of the third district without a permit from the officer in command of the Defence Corps. Junks must also obtain permission.
2. Vessels entering the harbour are not allowed to proceed to the roadstead, described in paragraph (d) at night time without permission of the officer in command of the Defence Corps.

3. Vessels are prohibited from anchoring in the entrance to Ta lien hwan without permission.
4. Vessels intending to enter the First or Second district when within three miles of the harbour limit must hoist their ensigns and signal their names by the International Code, and keep the flags flying until anchored. Vessels leaving the harbour must hoist their ensigns and indicate their names by the same Code. At night vessels must exhibit the lights prescribed by the regulations for prevention of collisions at sea.
5. Vessels must obey the orders of the officer in command of the Defence Corps respecting their movements and berthing.
6. Vessels with infectious or contagious diseases on board which have not received pratique must stop at a distance of more than one mile from Ta lien hwan roadstead, hoist the quarantine flag, and await orders. Should disease break out on board vessels in the First or Second District, the quarantine flag must be hoisted.
7. Rubbish must not be thrown overboard in the First District.
8. Fishing and collecting seaweed is prohibited in the First and Second Districts without permission.
9. The undermentioned, except by authorised officers, are prohibited without permission:—
 - (a) Surveying, sketching, photographing the features of the land and water, and the publication of geographical notes or maps.
 - (b) The construction of piers or wharves, the reclamation or dredging of the foreshore; the digging of hills and grounds; the establishment of buoys, beacons or navigational marks.
10. The following are strictly forbidden:—
 - (a) To damage military building, ships of war or other vessels, or steal or damage military stores within the harbour limits.
 - (b) To spy and divulge the conditions of armament, fortification in the harbour, and military matters generally.
 - (c) To spread rumours, and to act to the detriment of order and discipline in the harbour.
11. Violation of the above regulations renders the offender, and in the case of ships the captain or commanding officer, liable to the punishment prescribed by military penal law.
12. The officer in command of the Ta lien hwan Defence Corps is empowered to enforce these regulations by the institution of bye-laws if necessary.

(Variation 3° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Kwantung peninsula, No. 1798; also China Sea Directory, vol. III, 1904, page 586.

PACIFIC OCEAN.

The Philippine islands—Luzon, east coast—Tabako bay—Malinao - Light established.

No. 313 (first publication).—The British Admiralty has given notice (No. 131 of 1906) that a red fixed light, elevated 31 feet above high water and visible in clear weather from a distance of 9 miles from the bearing of S. 25° E., through south and west, to N. 85° W., has been established on a white wooden tripod, 19 feet high, erected on the ruins of an old fort on the beach in front of the town of Malinao, Tabako bay.

Approximate position, lat. 13° 24' N., long. 123° 43' E.

(Variation Nil in 1906.)

This Notice affects the following Admiralty Charts:—Molucca passage to Manila, No. 943; San Bernardino and Mindoro straits, No. 2577; Also List of Lights, part VI, 1905, page 111; Eastern Archipelago, part I, 1902, page 381.

PACIFIC OCEAN.

The Philippine islands—Negros, east coast—Point Jilaitan—Reef to the southward.

No. 314 (*first publication*).—The British Admiralty has given notice (No. 132 of 1906) of the existence of a reef, with depths of from 2 to 15 feet over it, to the southward of point Jilaitan, Negros island, situated at a distance of $15\frac{1}{4}$ miles S. 21° W. from Refugio island centre; this reef is about 150 yards in extent and is surrounded by deep water.

Approximate position on chart No. 2578, lat. $10^{\circ} 14\frac{1}{4}'$ N, long. $123^{\circ} 17'$ E.

(Variation 1° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Molucca passage to Manila*, No. 943; *Sulu, or Mindoro sea*, No. 2578: Also *Eastern Archipelago, part I*, 1902, page 275.

AUSTRALIA, SOUTH—ST. VINCENT GULF.

Port Adelaide—Tidal Signals amended.

No. 315 (*first publication*).—The British Admiralty has given notice (No. 137 of 1906) that, on and after 6th January 1906, the tidal signals made at the Pilot signal station, Semaphore jetty, Port Adelaide, would be altered to show the depth of water above or below the depths shown on the Chart as follows:—

One ball at the south yardarm indicates	...	1 foot.
" " north " "	...	2 feet.
Two balls at the south yardarm indicates	...	3 "
" " north " "	...	4 "
One ball at the masthead indicates	...	5 "
One ball at the masthead and one ball at south yardarm indicates	...	6 "
One ball at the masthead and one ball at north yardarm indicates	...	7 "
One ball at the masthead and two balls at south yardarm indicates	...	8 "
One ball at the masthead and two balls at north yardarm indicates	...	9 "
Two balls at the masthead indicates	...	10 "
Two balls at the masthead and one ball at south yardarm indicates	...	11 "
Two balls at the masthead and one ball at north yardarm indicates	...	12 "
A cone point upwards at either yardarm indicates an additional	...	3 inches.
A diamond at either yardarm indicates an additional	...	6 "
A cone point downwards at either yardarm indicates an additional	...	9 "

At low water a drum will be hoisted at the masthead. Should the water be below the level of low water, the above symbols are used, but the drum is kept up to show that the depth given must then be subtracted from the depths shown on the chart.

Example.—Two balls at the south yardarm and a cone point upwards at the north yardarm shows that 3 feet 3 inches will have to be added to the sounding on the chart to give the depth at that time. One ball at the masthead under a drum indicates that 5 feet will have to be subtracted from the sounding on the chart to give the required depth.

Approximate position, lat. $34^{\circ} 51'$ S., long. $138^{\circ} 29'$ E.

This Notice affects the following Admiralty Chart:—*Australia, vol. I*, 1897, pages 334, 335.

PACIFIC OCEAN—CHRISTMAS ISLAND, EAST POINT AND BIRNIE ISLAND.

Beacons erected.

No. 316 (*first publication*).—The British Admiralty has given notice (No. 138 of 1906) that beacons have been erected on the undermentioned islands in the Pacific:—

(a) *Christmas island*.—A beacon has been constructed on the east point of this island; it has been placed on the chart approximately lat. $1^{\circ} 55\frac{1}{2}'$ N., long. $157^{\circ} 5'$ W.

The coast line of Christmas island is reported to be inaccurately delineated on the chart.

(b) *Birnie island*.—A beacon has been constructed on this island: it has been placed on the chart at a distance of 5 cables to be north-westward of its southern sandy extremity.

Approximate position, lat. $3^{\circ} 35' S.$, long. $171^{\circ} 33' W.$

This Notice affects the following Admiralty Charts:—*Ellice islands to Phoenix islands* No. 1830; *Enderbury island to Christmas island*, No. 3045; *plan of Christmas island on chart* No. 2867; *plan of Birnie island on chart* No. 184; *Also Pacific Islands*, vol. II, 1900, page 247; vol. III, 1900, page 181; and Supplement, 1903, page 12.

EASTERN ARCHIPELAGO—CELEBES, WEST COAST.

Lariang river—Shoal.

No. 317 (first publication).—The British Admiralty has given notice (No. 146 of 1906) of the existence of a reef, which dries at low water, situated in a position from which the entrance of Lariang river bears N. $70^{\circ} E.$, distant 2 miles, and Batugah point, N. $11^{\circ} E.$

Approximate position, lat. $1^{\circ} 25\frac{1}{2}' S.$, long. $119^{\circ} 15\frac{1}{2}' E.$

(Variation 2° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Eastern Archipelago*, No. 941b; *strait of Makassar*, No. 2637; *Also Eastern Archipelago*, part II, 1904, page 320.

EASTERN ARCHIPELAGO—JAVA, NORTH COAST.

Pekalongan light—Character altered.

No. 318 (first publication).—With reference to Notice to Mariners No. 405, dated 21st October 1905, issued by this Office, the British Admiralty has given further notice (No. 147 of 1906) that the character of Pekalongan light has been altered from a white fixed to a white flashing light every three seconds, thus:—flash, one second; eclipse, two seconds.

Approximate position, lat. $6^{\circ} 51\frac{1}{2}' S.$, long. $109^{\circ} 41\frac{1}{2}' E.$

This Notice affects the following Admiralty Charts:—*Eastern Archipelago, western portion* No. 941a; *island of Java, western portion*, No. 1653; *Also List of Lights*, part VI, 1906, No. 484; and *Eastern Archipelago*, part II, 1904, page 105.

The 29th August 1906.

CHINA SEA—SULU ARCHIPELAGO.

Bongao island—Light altered.

No. 319 (first publication).—With reference to Notice to Mariners No. 440, dated 30th December 1904, issued by this office, the British Admiralty has given further notice (No. 817 of 1906) that a red fixed light, elevated 23 feet above high water, has been established on a beacon with concrete foundation, erected on the extremity of the reef extending from the north-eastern point of Bongao island, entrance to port Bongao, at a distance of 14 cables N. $65^{\circ} W.$ from Matos point. The white fixed light shown on the chart at a distance of $9\frac{1}{2}$ cables N. $20^{\circ} E.$ from the extremity of Martinez point has no existence.

Approximate position, on chart No. 2576, lat. $5^{\circ} 2\frac{1}{2}' N.$, long. $119^{\circ} 46\frac{1}{2}' E.$

(Variation 1° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—*Sulu Archipelago*, No. 928; *Taganak to Tawi Tawi*, No. 1868; *Bongao anchorage*, No. 1243; *Sulu Archipelago and plan of port Bongao*, No. 2576; *Also List of Lights*, part VI, 1906, No. 598; *Eastern Archipelago*, part I, 1902, page 134; and Supplement, 1906, page 13.

CHINA, SOUTH-EAST COAST—PORT SWATAU.

Sugarloaf channel—Non-existence of shoals.

No. 320 (*first publication*).—The British Admiralty has given notice (No. 818 of 1906) that a careful but unsuccessful search, both by sounding and sweeping, has been made for the two rocks in Sugarloaf channel, port Swatau, shown on the chart with depths of $2\frac{1}{2}$ and $1\frac{1}{2}$ fathoms over them, situated at distances of $4\frac{1}{2}$ cables N. 78° W. and 7 cables N. 67° W. respectively from Sugarloaf light-house. There being nothing known about them locally, and the original authority for their appearance on the chart being unsatisfactory, it is considered that they do not exist, and they have in consequence been erased from the chart.

Approximate position, Sugarloaf light-house, lat. $23^{\circ} 19\frac{1}{2}'$ N., long. $116^{\circ} 45\frac{1}{2}'$ E.

(*Variation Nil in 1906.*)

This Notice affects the following Admiralty Chart:—Port of Swatau, No. 854; Also China Sea Directory, vol. III, 1904, page 150.

CHINA SEA—SULU ARCHIPELAGO—PALAWAN, EAST COAST.

Port Princessa (Royalist) and Tai Tai—Lights discontinued.

No. 321 (*first publication*).—The British Admiralty has given notice (No. 819 of 1906) that the red fixed light formerly shown on the outer end of the Obando mole, puerto Princessa, has been discontinued.

Approximate position, lat. $9^{\circ} 44\frac{1}{2}'$ N., long. $118^{\circ} 42\frac{1}{2}'$ E.

Also that the white fixed light formerly shown on the fort at Tai Tai has been discontinued.

Approximate position, lat. $10^{\circ} 50'$ N., long. $119^{\circ} 30'$ E.

This Notice affects the following Admiralty Charts:—China sea, No. 2660b; Palawan island, No. 967; port Royalist, No. 3914; Also List of Lights, part VI, 1906, Nos. 595, 596; and China Sea Directory, vol. II, 1899, pages 272, 283; and Supplement, 1901, page 8.

CHINA—YANG TSE KIANG, NORTH CHANNEL.

Drinkwater point—Light and light-buoy replaced by light-vessel.

No. 322 (*first publication*).—With reference to Notice to Mariners No. 268, dated 27th July 1906, issued by this office, the British Admiralty has given further notice (No. 822 of 1906) that on or about July 1st a light-vessel, exhibiting a white occulting dioptric light every ten seconds, thus:—light, five seconds; eclipse, five seconds, would be established in a position about 3 miles N. 83° W. from Drinkwater point light and bell-buoy; the light, which is of the 4th order, is elevated 35 feet above the sea, and visible in clear weather from a distance of 11 miles; the vessel is iron, painted red, marked "Drinkwater point," and has an iron column surmounted by the lantern. During thick or foggy weather a bell will be struck once every fifteen seconds.

Approximate position, lat. $34^{\circ} 24\frac{1}{2}'$ N., long. $121^{\circ} 56\frac{1}{2}'$ E.

Should this light-vessel be out of position, the light will not be exhibited, but a red fixed light will be shown from each end of the vessel at night, and a red flag displayed by day.

On the establishment of the above light-vessel, the white group flashing light on Drinkwater point, and Drinkwater point light and bell-buoy would be discontinued.

(*Variation 3° Westerly in 1906.*)

This Notice affects the following Admiralty Charts:—Kueshan sands to Yang tse Kiang, No. 1199; approaches to the Yang tse Kiang, No. 1502; Also List of Lights, part VI, 1906, page 133. No. 812. Also China Sea Directory, vol. III, 1904, page 403.

AFRICA, EAST COAST—SOMALILAND.

Athelet (Itala) anchorage—Beacons erected.

No. 323 (first publication).—The British Admiralty has given notice (No. 823 of 1906) that two leading beacons have been erected to the northward of Athelet in the following positions:—

- (a) A pyramidal wooden beacon, painted black, elevated 115 feet above high water, on White hill, at a distance of $1\frac{1}{2}$ mile N. 23° E. from La Garesa.
- (b) A rectangular beacon, supported by two poles at a distance of 2 cables S. 43° E. from the above.

These two beacons in line N. 43° W. lead to the northern anchorage.

Approximate position of La Garesa, lat. $2^{\circ} 45\frac{1}{2}'$ N., long. $46^{\circ} 18\frac{1}{2}'$ E.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Plan of Athelet anchorage on chart No. 671: Also Africa Pilot, part III., 1905, page 523.

EASTERN ARCHIPELAGO—JAVA, EAST COAST—BALI STRAIT.

Banjuwangi light—Character altered.

No. 324 (first publication).—With reference to Notice to Mariners No. 227, dated 26th June 1906, issued by this office, the British Admiralty has given further notice (No. 828 of 1906) that on 24th June last the white, fixed light at Banjuwangi was replaced by a white flashing light every fifteen seconds, thus:—flash, three seconds; eclipse, twelve seconds. The light is of the 6th order and produced by acetylene gas.

Approximate position, lat. $8^{\circ} 12\frac{1}{2}'$ S., long. $114^{\circ} 22\frac{1}{2}'$ E.

This Notice affects the following Admiralty Charts:—Australia, northern portion, No. 2759a; Eastern Archipelago, No. 941b; Java, eastern portion, No. 1654; plan of Bali strait on chart No. 934; plan of Banjuwangi on chart No. 932: Also List of Lights, part VI, 1906, No. 508; and Eastern Archipelago, part II, 1904, page 144.

AUSTRALIA, SOUTH—TASMANIA, NORTH COAST.

Hunter passage—Dangers in approach.

No. 325 (first publication).—The British Admiralty has given notice (No. 831 of 1906) of the existence of the undermentioned dangers in the approaches to Hunter passage, on the north coast of Tasmania:—

- (1) A rock, with a depth of 18 feet over it at low water, situated in a position from which the north-west point of Hunter island bears S. 76° E., distant 7 cables, and cape Keraudren N. 32° E.

Approximate position, lat. $40^{\circ} 28\frac{1}{2}'$ S., long. $144^{\circ} 42'$ E.

A rock, which dries one foot at low water, is situated half a mile S. 20° E. from the above.

- (2) A rock, with a depth of 10 feet over it at low water, is situated in a position from which the northern extremity of Steep island bears S. 76° W., distant $1\frac{1}{2}$ miles, and Delius island S. 4° E.
- (3) A shoal of sand, with a least depth of $1\frac{1}{2}$ fathoms over it extends to the eastward of the north-eastern Petrel island. The eastern extremity of this shoal, as defined by the 3-fathom contour line, is situated in a position from which the north-eastern Petrel island bears N. 85° W., distant $3\frac{1}{2}$ miles, and the eastern extremity of Three Hummock island N. 21° W.; the northern edge of the same shoal, which is steep-to, is situated with the north-eastern Petrel island bearing S. 60° W., distant $1\frac{1}{2}$ miles, and the eastern extremity of Three Hummock island N. 8° W. The eastern edge of the 5-fathom contour line is situated at a distance of $5\frac{1}{2}$ miles S. 75° E. from the north-eastern Petrel island.

Approximate position, north-eastern Petrel island, lat. $40^{\circ} 33\frac{1}{2}'$ S., long. $144^{\circ} 57'$ E.

(Variation 8° easterly in 1906.)

This Notice affects the following Admiralty Charts:—Bass strait, No. 1645b; Hunter passage, No. 3412: Also Australia Directory, vol. I. 1897, pages 636, 634, 632.

AUSTRALIA, SOUTH—TASMANIA, NORTH COAST.

Port Stanley—Breakwater and Pier Head light.

No. 326 (*first publication*).—The British Admiralty has given notice (No. 832 of 1906) that a breakwater has been constructed at Port Stanley, extending from the south side of Circular head in a S. 10° E. direction for a distance of 643 feet. There is a depth of 29 feet at the outer end and 15 feet at the inner end at low-water springs.

A *white fixed* lantern light is exhibited 214 feet from its outer end and a similar light at its inner end; both these lights are stated to be obscure from seaward, but visible over the anchorage.

Also, that a pier, with a T-shaped head, has been constructed at a distance of 250 yards westward from the breakwater; it extends from the shore in a S. 7° E. direction from a distance of 304 feet. There is a depth of 22 feet at the eastern end of the head and 19 feet at the western.

A *fixed* light, showing *red* seaward from the bearing of S. 36° W., through west, to N. 54° W., and *white* in other directions, is exhibited from the eastern head.

A *green fixed* light is also shown from a small jetty to the westward of the above pier.

Approximate position, lat. 40° 45½' S., long. 145° 19½' E.

(Variation 8° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—Bass strait, No. 1695b: Also List of Lights, part VI, 1906, page 261; and Australia Directory, 1897, vol. I, page 628.

EASTERN ARCHIPELAGO—BORNEO, NORTH-WEST COAST.

Great Natuna island—Shoals in the vicinity.

No. 327 (*first publication*).—The British Admiralty has given notice (No. 839 of 1906) of the existence of the undermentioned dangers in the vicinity of Great Natuna island in the following positions:—

- (1) A coral reef, with a least depth of 2½ fathoms over it, situated at a distance of 2½ miles S. 22° W. from Semione island. This reef is about 2 cables in extent.
- (2) A coral reef, with a least depth of 5 fathoms over it, situated at a distance of 3½ miles N. 17° E. from Semione island. This reef is about 2 cables in extent.

Approximate position, Semione island, lat. 4° 31' N., long. 107° 42½' E.

- (3) A small coral reef, with a least depth of 1½ feet over it, situated at a distance of 4½ miles N. 82° E. from the south-eastern point of Great Natuna island.

Approximate position, lat. 3° 40' N., long. 108° 20' E.

There is another reef, with a least depth of 5 fathoms over it, situated at a distance of 3½ miles N. 44° E. from the above (3).

- (4) The Postillon (Elphinstone) rocks consist of two rocks, the southernmost being the largest. A reef, with general depths on it of from 8 to 11 fathoms, extends from the largest rock for 1½ miles in a northerly direction, 2½ miles in an easterly direction, 1½ miles in a southerly direction and 1 mile in a westerly direction, but shoal heads of 4½ fathoms exist, situated respectively about 1½ miles N. 25° W. and 2½ miles S. 25° E. from the largest rock.

Approximate position, Postillon or Elphinstone rocks, lat. 3° 22½' N., long. 107° 50½' E.

(Variation 2° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—China sea, No. 2660a; Natuna islands, No. 1348: Also China Sea Directory part II, 1899, pages 87, 86, 84.

The 31st August 1906.

BAY OF BENGAL—SINGAPORE STRAIT.

Coney island—Raffles light altered.

No. 328 (*first publication*).—The Master Attendant, Singapore, has given notice, dated 24th August 1906, that on and after 24th September, Raffles light ($1^{\circ} 10' N. 103^{\circ} 44\frac{1}{2}' E.$) Coney island, will be altered to a group-flashing white, showing groups of three flashes in quick succession, every 10 seconds.

BAY OF BENGAL—MALABAR COAST.

Cochin harbour—Bar, Spit and Quarantine Buoys replaced in position.

No. 329 (*first publication*).—With reference to Notice to Mariners No. 175, dated 18th May 1906, issued by this Office, the Officiating Presidency Port Officer, Madras, has given further notice (No. 18 of 1906) that the Bar, Spit and Quarantine Buoys at Cochin will be replaced in position on the 15th September 1906.

BAY OF BENGAL—MALABAR COAST.

Mallipuram—Light discontinued.

No. 330 (*first publication*).—With reference to Notice to Mariners No. 175, dated 18th May 1906, issued by this Office, the Officiating Presidency Port Officer, Madras, has given further notice (No. 18 of 1906) that the light at Mallipuram will be discontinued after the 30th September as usual.

The 3rd September 1906.

AFRICA, NORTH-EAST—RED SEA.

Shoal reported.

No. 304 (*second publication*).—The Bombay Government has given notice (No. 82 of 1906) that the Master of S. S. *Africa* reported that on 26th July 1906, the ship was observed in shoal water and on sounding obtained 2 fathoms on the following bearings:—

N. W. Point Ras Mujamela Island $N. 27\frac{1}{2}^{\circ} E. (T).$
Extreme South Point of above Island $S. 78^{\circ} E. (T).$

Soundings obtained from $1\frac{1}{2}$ fathoms, gradually increasing to the eastward up to 4 and 5 fathoms.

Approximate position—

Latitude $14^{\circ} 33\frac{1}{2}' N.$
Longitude $42^{\circ} 52\frac{1}{2}' E.$

This notice affects the following Admiralty Charts:—Red Sea (General Chart), No. 2523 Red Sea, Sheet V, No. 8E; and Jabel Teir to Perim Island, No. 143; also Red Sea and Gulf of Aden Pilot, fifth edition, 1900, page 337.

AFRICA, NORTH-EAST—GULF OF ADEN.

Aden anchorage—Channel buoys.

No. 305 (*second publication*).—The Bombay Government has given notice (No. 83 of 1906) that on the 20th August 1906, the three Port hand Channel buoys in the inner harbour of Aden will be moved and relaid on the following bearings:—

- | | | | |
|-----------------------------------|-----|-----|---|
| 1. Western buoy—from old position | ... | ... | S. $55\frac{1}{2}^{\circ} E. (T)$ 25 yards. |
| Ras Marbut Flagstaff | ... | ... | S. $40^{\circ} E. (T).$ |
| Residency Flagstaff | ... | ... | S. $17\frac{3}{4}^{\circ} E. (T).$ |
| Clock Tower | ... | ... | S. $78\frac{3}{4}^{\circ} E. (T).$ |
| Flagstaff Tarsheim Point | ... | ... | S. $2^{\circ} E. (T).$ |
| Quarantine Island Flagstaff | ... | ... | N. $83\frac{1}{2}^{\circ} E. (T).$ |
| 2. Centre buoy—from old position | ... | ... | S. $17\frac{1}{2}^{\circ} W. 110$ yards. |
| Ras Marbut Flagstaff | ... | ... | S. $8\frac{1}{2}^{\circ} W. (T).$ |
| Clock Tower | ... | ... | S. $61^{\circ} E. (T).$ |
| Signal Station Flagstaff | ... | ... | S. $21\frac{1}{2}^{\circ} E. (T).$ |
| Quarantine Island Flagstaff | ... | ... | N. $88^{\circ} E. (T).$ |

3. Eastern buoy—from old position	...	... South (T) 67 yards.
Ras Marbut Flagstaff	...	... S. $89\frac{1}{2}^{\circ}$ W. (T).
Clock Tower	...	... S. 27° W. (T).
Signal Station Flagstaff	...	... S. 10° W. (T).
Quarantine Island Flagstaff	...	... S $80\frac{1}{2}^{\circ}$ E. (T).

This notice affects the following Admiralty Charts:—Gulf of Aden, Sheet II, Western portion No. 6C; Aden and adjacent bays. Aden Anchorage, No. 7; Red Sea, Sheet V, No. 8E; and Arabian Sea, No. 1012; and Red Sea and Gulf of Aden Pilot, fifth edition, 1900, page 350, and Supplement, 1904, relating to Red Sea and Gulf of Aden Pilot, page 39.

NEW ZEALAND—NORTH ISLAND, WEST COAST.

Kaipara bar—Additional beacon erected.

No. 306 (second publication).—With reference to Notice to Mariners No. 198, dated 10th June 1905, issued by this office, the British Admiralty has given further notice (No. 790 of 1906) that the front of the two beacons erected on the North Head, Kaipara harbour, being difficult to distinguish, a middle and larger beacon, 42 feet high, has been erected at a distance of $1\frac{1}{2}$ cables N. 52° E., from the front beacon. The heights of the beacons are—front beacon 32 feet, middle beacon 44 feet, rear beacon 42 feet. These beacons in line N. 52° E. lead over the bar.

Approximate position, lat. $36^{\circ} 28'$ S., long. $174^{\circ} 8\frac{1}{2}'$ E.

(Variation 13° Westerly in 1906.)

This Notice affects the following Admiralty Chart:—Kaipara harbour, No. 2614:—Also New Zealand Pilot, 1901, page 244; and Supplement, 1903, page 24.

INDIA, SOUTH—CEYLON, WEST COAST.

Colombo harbour—Northern passage open.

No. 307 (second publication).—The British Admiralty has given Notice (No. 791 of 1906) that the northern entrance between the North-east and North-west breakwaters, Colombo harbour, is open for the passage of vessels.

Further Notice will be given when information respecting the lighting of this passage has been received.

Approximate position, lat. $6^{\circ} 58'$ N., long. $79^{\circ} 51'$ E.

This Notice affects the following Admiralty Chart:—Colombo harbour, No. 914: Also West Coast of Hindustan Pilot 1898, page 95; Supplement, 1903, page 5; Bay of Bengal Pilot, 1901, page 73; and Supplement, 1903, page 1.

AFRICA, EAST COAST—TANGA HARBOUR.

Lights established.

No. 308 (second publication).—The British Admiralty has given notice (No. 798 of 1906) that a green fixed light is exhibited from the flagstaff in front of the Custom House, Tanga.

Approximate position of Custom House on chart No. 663, lat. $5^{\circ} 4\frac{1}{2}'$ S., long. $39^{\circ} 6\frac{1}{2}'$ E.

Also, that two white fixed lights are exhibited from two iron poles situated at each extremity of the iron pier.

This Notice affects the following Admiralty Charts:—Mansa and Tanga bays, No. 663: Also, Light of Lights Part VI, 1906, page 18; and Africa Pilot, Part III, 1905, page 456.

PACIFIC OCEAN, SOUTH—NEW CALEDONIA.

Port Noumea approach—Beacon disappeared.

No. 309 (second publication).—The British Admiralty has given notice (No. 805 of 1906) that the iron beacon on the westernmost of the Four Northern banks, port Noumea approach, formerly situated about $7\frac{1}{2}$ miles S. 40° E. from port Noumea flagstaff, has disappeared.

Approximate position of flagstaff, lat. $22^{\circ} 16\frac{1}{4}'$ S., long. $166^{\circ} 26\frac{1}{4}'$ E.

(Variation 10° Easterly in 1906.)

This Notice affects the following Admiralty Charts:—Uen island to St. Vincent bay, No. 2907; approaches to port Noumea, No. 2069; Also Pacific Islands vol. II, 1900, page 310.

CHINA, EAST COAST—FUCHAU.

Min river—Rock reported in approach.

No. 310 (second publication).—The British Admiralty has given notice (No. 810 of 1906) that a rock, with a depth over it of $1\frac{1}{2}$ fathoms at low-water springs, is reported to exist in the approach to the river Min, situated at a distance of 11 cables N. 10° W. from the summit (295 feet) of Olingau island. No bearings are given: the position therefore must be considered approximate.

Approximate position, lat. $26^{\circ} 15\frac{1}{4}'$ N., long. $119^{\circ} 59\frac{1}{4}'$ E.

(Variation 1° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Ookseu island to Tung yung No. 1761; River Min, No. 2400; Also China Sea Directory, vol. III, 1904, page 269.

JAPAN—KIUSIU, WEST COAST.

Nagasaki harbour—Shoal in approach—Beacon disestablished—Colour of buoy.

No. 311 (second publication).—The British Admiralty has given notice (No. 813 of 1906) of the existence of a shoal, with a depth of $5\frac{1}{2}$ fathoms over it, in the southern approach to Nagasaki harbour, situated in a position from which Kajikake beacon bears S. 38° W., distant $1\frac{1}{2}$ cables, and the northern end of Goroye shima S. 76° E.

Approximate position, lat. $32^{\circ} 41\frac{1}{4}'$ N., long. $129^{\circ} 49\frac{1}{4}'$ E.

Also, that the beacon marking Minage zaki, Nagasaki harbour, has been removed.

NOTE.—On certain copies of Admiralty Chart No. 2815 the colour of the buoy marking Osone, situated about 6 cables S. 28° E. from Nezumi jima, is shown as red, instead of red and black horizontal bands.

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Nagasaki harbour, Nos. 2415 and 2815; Also Sailing Directions for Japan, &c., 1904, pages 550, 551, 552.

BAY OF BENGAL—CHITTAGONG COAST.

South Patches light-vessel placed in position.

No. 295 (third publication).—In continuation of Notice to Mariners No. 26, dated the 12th January 1906, issued by this office, the Port Officer, Chittagong, has given further notice that the South Patches light-vessel was placed in position on the 15th August.

AUSTRALIA, SOUTH—PORT ADELAIDE RIVER.

Dredged channel—Light beacons established.

No. 296 (third publication).—With reference to Notice to Mariners No. 242, dated the 3rd July 1906, issued by this office, the British Admiralty has given further notice (No. 762 of 1906) that the erection of light beacons on the port side of the dredged channel when entering Port Adelaide river has been completed. These beacons are painted black, each exhibiting fixed light showing green over the channel and white towards the shore. They

are marked G and numbered 0 to 9, commencing from seaward. Each beacon stands 15 feet clear of the channel. No. 0 G. is placed about $3\frac{1}{2}$ cables S. 58° W. from the Reflecting beacon at the entrance to the channel. No. 1 G. is about a quarter of a cable S. 51° W. from the Reflecting beacon. No. 2 G. is situated opposite the closed channel about one mile N. 31° E. from the Reflecting beacon. The remaining beacons are placed opposite the beacon of the corresponding number on the other side of the channel.

The red light on the beacon situated 13 cables N. 35° E. from the Reflecting beacon would, on the 1st June, be discontinued.

The dredged channel is now marked throughout by red beacons exhibiting *white fixed* lights on the starboard hand on entering, and black beacons exhibiting *green fixed* lights on the port hand.

Approximate position, Reflecting beacon, lat. $34^{\circ} 47\frac{1}{2}'$ S., long. $138^{\circ} 28\frac{1}{2}'$ E.

(Variation 5° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—*Port Adelaide*, No. 1750. Also, *List of Lights*, Part VI, 1906, page 206; and *Australia Directory*, vol. I, 1897, page 332.

STRAITS SETTLEMENTS—SINGAPORE, EASTERN APPROACH, MIDDLE CHANNEL.

Lima islands—Shoal reported south-east of—.

No. 297 (third publication).—The British Admiralty has given notice (No. 769 of 1906) that the Master of the S.S. *Fallodon* reports that his vessel struck on a reef, with a depth of 3 fathoms over it, when at a distance of about 6 cables south-eastward from Stork reef, Lima islands, in approximately lat. $1^{\circ} 21\frac{1}{2}'$ N., long. $104^{\circ} 19\frac{1}{2}'$ E.

P.D. has been placed against this shoal on the chart.

Mariners are recommended to give these islands a wide berth.

This Notice affects the following Admiralty Charts:—*Banka strait to Singapore*, No. 2757; *approaches to Singapore*, No. 3543; *Singapore to Tioman island*, No. 2041; *Singapore strait*, No. 2403; Also, *China Sea Directory*, vol. I, 1896, page 237.

AUSTRALIA, NORTH-WEST COAST—KING SOUND.

Sunday strait—Shoal reported.

No. 298 (third publication).—The British Admiralty has given notice (No. 770 of 1906) that a reef, with a depth of about one foot over it at low water, is reported to exist in Sunday strait, King sound, in approximately lat. $16^{\circ} 27\frac{1}{2}'$ S., long. $123^{\circ} 16\frac{1}{2}'$ E. "Reported 1906" has been placed against this shoal on the charts. This position, for which no bearings are furnished, might be identical with Amur reef, which is placed on the chart approximately.

This Notice affects the following Admiralty Charts:—*Buccaneer archipelago to Bedout island*, No. 1048; *Hall point to cape Bertholet*, No. 1052; Also, *Australia Directory*, vol. III, 1905, page 192.

EASTERN ARCHIPELAGO—SUMATRA, NORTH COAST.

Pulo Bras group—Dangers in the vicinity.

No. 299 (third publication).—The British Admiralty has given notice (No. 774 of 1906) of the existence of the undermentioned dangers, and the non-existence of another, in the vicinity of the Pulo Bras islands, as follows:—

(1) Lampujang strait. The shoals at the western entrance to this strait, off the north-western point of Nasi Besar, extend about half a cable further out than shown on the chart. There is a depth of $3\frac{1}{2}$ fathoms on this extension.

At a distance of $4\frac{1}{16}$ cables S. 75° W. from the south point of Pulo Bras is the south-eastern extremity of a ridge, which extends from this position $4\frac{1}{16}$ cables in a north-westerly direction, having a breadth of about four-tenths of a cable. The least depth found on this ridge was $2\frac{1}{2}$ fathoms at low-water springs.

Approximate position, Pulo Bras, south point, lat. $5^{\circ} 39\frac{1}{2}'$ N., long. $95^{\circ} 10\frac{1}{2}'$ E.

- (2) Gepon islets. The reef extending to the southward from these islets does not exist.

Approximate position, lat. $5^{\circ} 36' N.$, long. $95^{\circ} 5' E.$

- (3) The least depth on the shoal of $4\frac{1}{2}$ fathoms between Pulo Batu and Pulo Kelapa was found to be $2\frac{1}{2}$ fathoms.

Approximate position, lat. $5^{\circ} 33\frac{1}{2}' N.$, long. $95^{\circ} 12\frac{1}{2}' E.$

The positions refer to chart No. 219.

(Variation 1° Easterly in 1906.)

This Notice affects the following Admiralty Chart:—Acheh head to Diamond point, with plan of Lampujang strait, No. 219: Also, China Sea Directory, vol. I, 1896, pages 43, 44.

CHINA, NORTH—YELLOW SEA—MANCHURIA.

Port Arthur or Lushan Kau approach—Shoal off Lao Lui Chui.

No. 300 (third publication).—The British Admiralty has given notice (No. 782 of 1906) of the existence of a rock, with a depth of $4\frac{1}{2}$ fathoms over it, in the approach to Port Arthur, situated in a position from which Lao Lui Chui bears N. $36^{\circ} W.$, distant $2\frac{1}{4}$ cables. At a distance of about four-tenths of a cable north-westward from this rock there is a rocky head with a depth of $2\frac{1}{2}$ fathoms over it; there is a depth of 9 fathoms between them, and from 12 to 17 fathoms around both rocks.

Approximate position, lat. $38^{\circ} 4' N.$, long. $121^{\circ} 19\frac{1}{4}' E.$

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Pechili strait, No. 1392; Kuangtung peninsula, No. 1798: Also, China Sea Directory, vol. III, 1904, pages 591, 592.

CHINA, NORTH—YELLOW SEA—MANCHURIA.

Port Arthur or Lushan Kau—Wreck in approach.

No. 301 (third publication).—The British Admiralty has given notice (No. 783 of 1906) that a wreck, with a depth of 10 fathoms over the hull, lies sunk in the approach to Port Arthur, situated in a position from which the 515 foot hill south-westward of Chikwan shan bears N. $15^{\circ} W.$, distant $1\frac{1}{4}$ miles, and the Port Arthur light, western side of entrance, N. $22^{\circ} E.$ There is no mention of masts projecting in the Notice received.

Approximate position, lat. $38^{\circ} 44\frac{3}{4}' N.$, long. $121^{\circ} 14\frac{1}{2}' E.$

(Variation 4° Westerly in 1906.)

This Notice affects the following Admiralty Charts:—Gulf of Pechili, No. 1798; Kwantung peninsula, No. 1392; Port Arthur, No. 1236: Also, China Sea Directory, vol. III, 1904, page 592.

JAPAN—GULF OF TARTARY—KARUFUTO (SAKHALIN) ISLAND SOUTH COAST.

Kushunkotan (Korsakovsk) road—Light established—Storm signals.

No. 302 (third publication).—The British Admiralty has given notice (No. 784 of 1906) that a white fixed light, elevated 201 feet above high water, and visible in clear weather from a distance of 12 miles, has been established on a white staff, 18 feet high, in place of the former light exhibited on the hill to the northward of Kushunkotan or Korsakovsk.

Approximate position, lat. $46^{\circ} 38\frac{1}{2}' N.$, long. $142^{\circ} 45\frac{1}{2}' E.$

A storm signal station has been established at Kushunkotan. The church, the beacons, and the mill at Kushunkotan, and the beacons at Porosan tomari (Ainskoe settlement), $1\frac{1}{2}$ miles to the southward, have all disappeared.

This Notice affects the following Admiralty Chart:—Plan of Korsakovsk road on char, No. 2192: Also, List of Lights, part VI, 1906, No. 1165; and Sailing Directions for Japan etc., 1904, pages 238, 239.

BAY OF BENGAL—CHITTAGONG COAST.

Karnafuli river—Depth of water in the channels.

No. 303 (third publication).—The Port Officer, Chittagong, has given notice that the following depth of water was found in the channels by soundings taken on the 17th August and reduced to zero :—

					Ft.	In.
<i>Track No. 1—Outer bar—</i>						
Disc on diamond	...	...	...	...	14	0
<i>Track No. 2—Inner bar—</i>						
Disc on diamond	...	...	...	...	11	6
Batten beacon on pillar	...	...	...	...	12	6
<i>Track No. 3—</i>						
Triangle on cross and ball	...	...	...	...	20	0
<i>Track No. 4—Guptakhally crossing—</i>						
Tripod on diamond	...	...	...	...	20	0

The 20th August 1906.

ST. L. S. WARDEN, COMMDR., R.I.M.,
Port Officer of Calcutta.